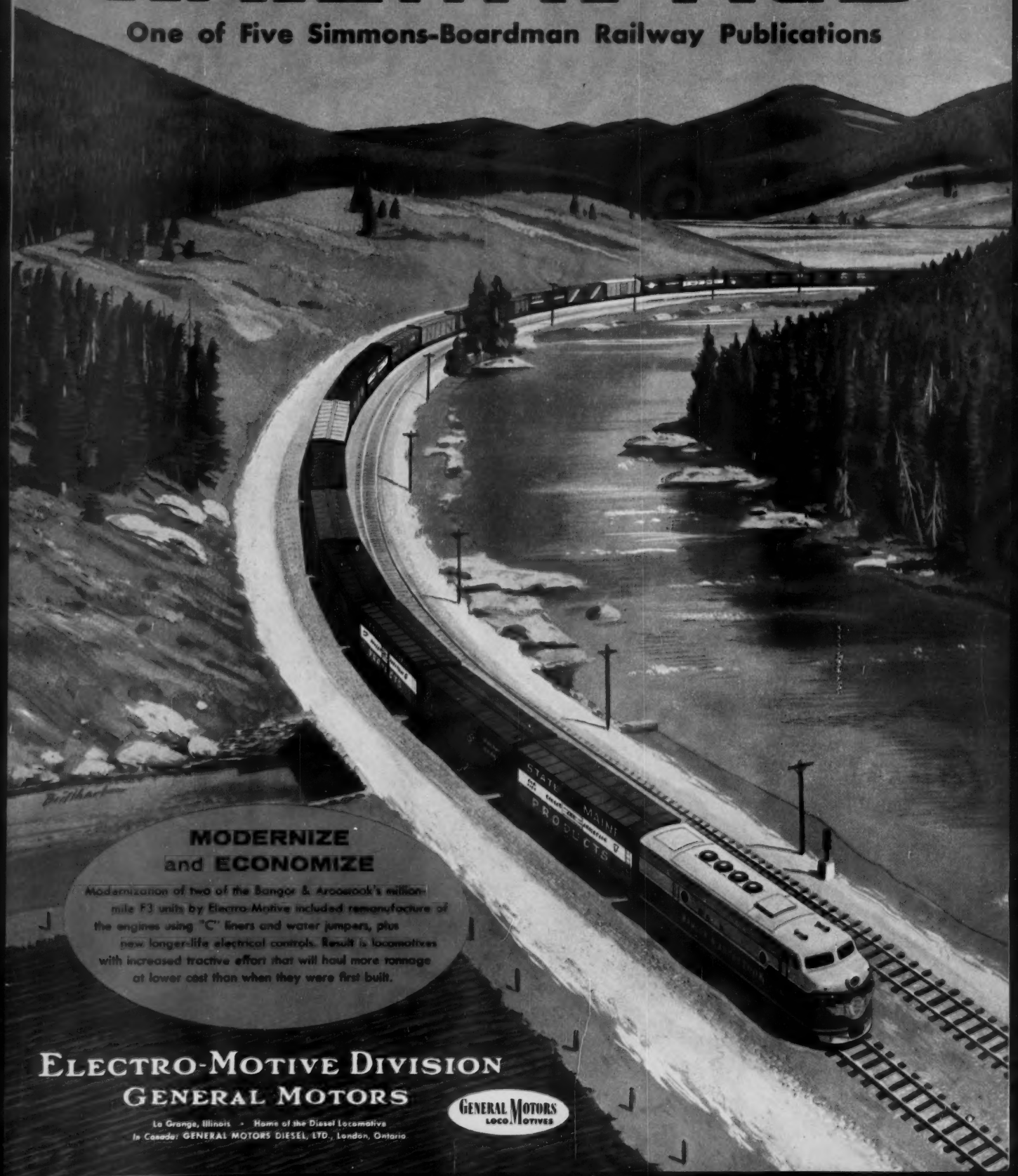
AUGUST 15, 1955

The Cars The Shippers Want . . . p. 39

RAILWAY AGE

One of Five Simmons-Boardman Railway Publications



MODERNIZE and ECONOMIZE

Modernization of two of the Bangor & Aroostook's million-mile F3 units by Electro-Motive included remanufacture of the engines using "C" liners and water jumpers, plus new longer-life electrical controls. Result is locomotives with increased tractive effort that will haul more tonnage at lower cost than when they were first built.

ELECTRO-MOTIVE DIVISION
GENERAL MOTORS

La Grange, Illinois • Home of the Diesel Locomotive
In Canada: GENERAL MOTORS DIESEL, LTD., London, Ontario

GENERAL MOTORS LOCOMOTIVES

The maintenance man walks by—

buildings protected with J-M Corrugated Transite

For half a century Johns-Manville Transite has been noted for its economical, maintenance-free performance in railroad service. Pressure moulded of asbestos and cement, Corrugated Transite is practically indestructible. It is fireproof, rotproof, weatherproof; needs no painting or treatment to preserve it.

Construction is fast, too, because Corrugated Transite comes in large sheets that require only a minimum of wood or steel framework. And you will find Corrugated Transite is equally adaptable as roofing or siding—on either new or remodeled structures. You can safely use it for the smallest shed or the largest freight station or diesel shop.

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Johns-Manville 97 YEARS OF SERVICE TO TRANSPORTATION

This photograph shows a Corrugated Transite building that has never been painted or received other preservative treatment in 25 years of service! It is a Hoboken, N. J. car shop of the Delaware, Lackawanna and Western Railroad.

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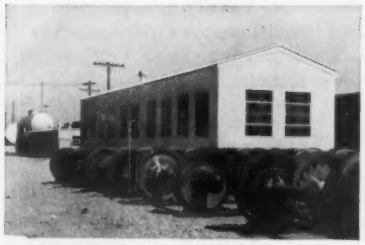
serve all major systems

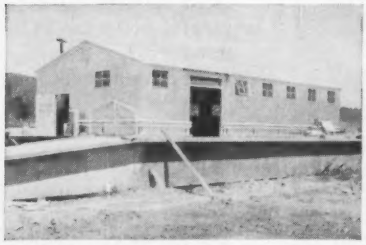
By actual count, more than 100 American railroads own Armco Steel Buildings—including all major systems. Pictured here are typical applications for these structures as used by various railroads.

Armco Buildings feature easy, low-cost erection; weather-tight and fire-resistant construction; quick dismantling and re-erection without loss of material; and a long life of efficient service.

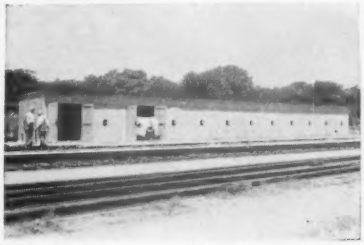
Armco Steel Buildings of STEELOX construction are supplied in a wide range of sizes to meet many railroad requirements. Write for data. Armco Drainage & Metal Products, Inc., 4895 Curtis Street, Middletown, Ohio. Subsidiary of Armco Steel Corporation. In Canada: write Guelph, Ontario. Export: The Armco International Corporation.



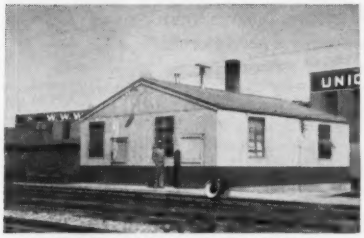
Wheel House. Western Pacific Railroad, West Oakland, California



Yard Storeroom. Southern Railway System, Birmingham, Alabama

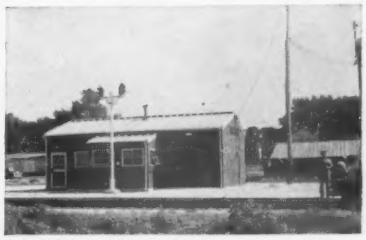


Motor Car Storage. Atchison, Topeka and Santa Fe, Arkansas City, Kansas



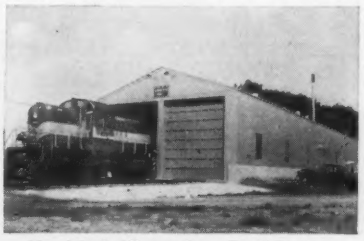
Locker Room. Northern Pacific Railway, Fargo, North Dakota

Yard Office. Chicago, Rock Island and Pacific, North Enid, Oklahoma



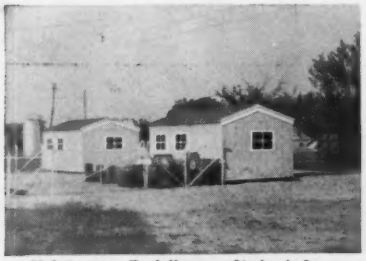
Combination Station. Chicago & Great Western Railroad, Westgate, Iowa

Diesel and Car Shop. Erie Railroad, Susquehanna, Pa.



Diesel Engine House. Green Bay & Western Railroad, Winona, Minnesota

Switchmen's Tender Building. Union Pacific Railroad Company, Kansas City, Kansas



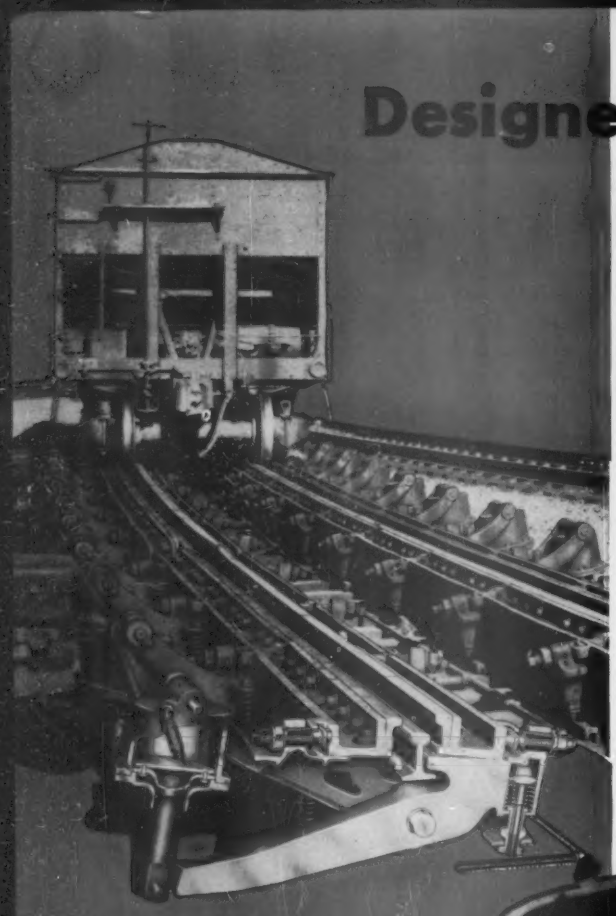
Maintenance Tool Houses. St. Louis-San Francisco Railway, Aurora, Missouri

Small Office. Chesapeake & Ohio Railroad, Greenup, Kentucky

Motor Car Garage. Baltimore & Ohio Railroad, Washington C. H., Ohio

ARMCO STEEL BUILDINGS

Designed with YOUR profits in mind



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"Push-button" classification using UNION Electro-Pneumatic Retarders with Retarder Speed Control and Automatic Switching can speed car handling and cut the cost of classifying cars in small yards as well as large yards. Such installations are saving hours per transfer car, and damage to lading is greatly reduced. Fully automatic control can be furnished where desired.

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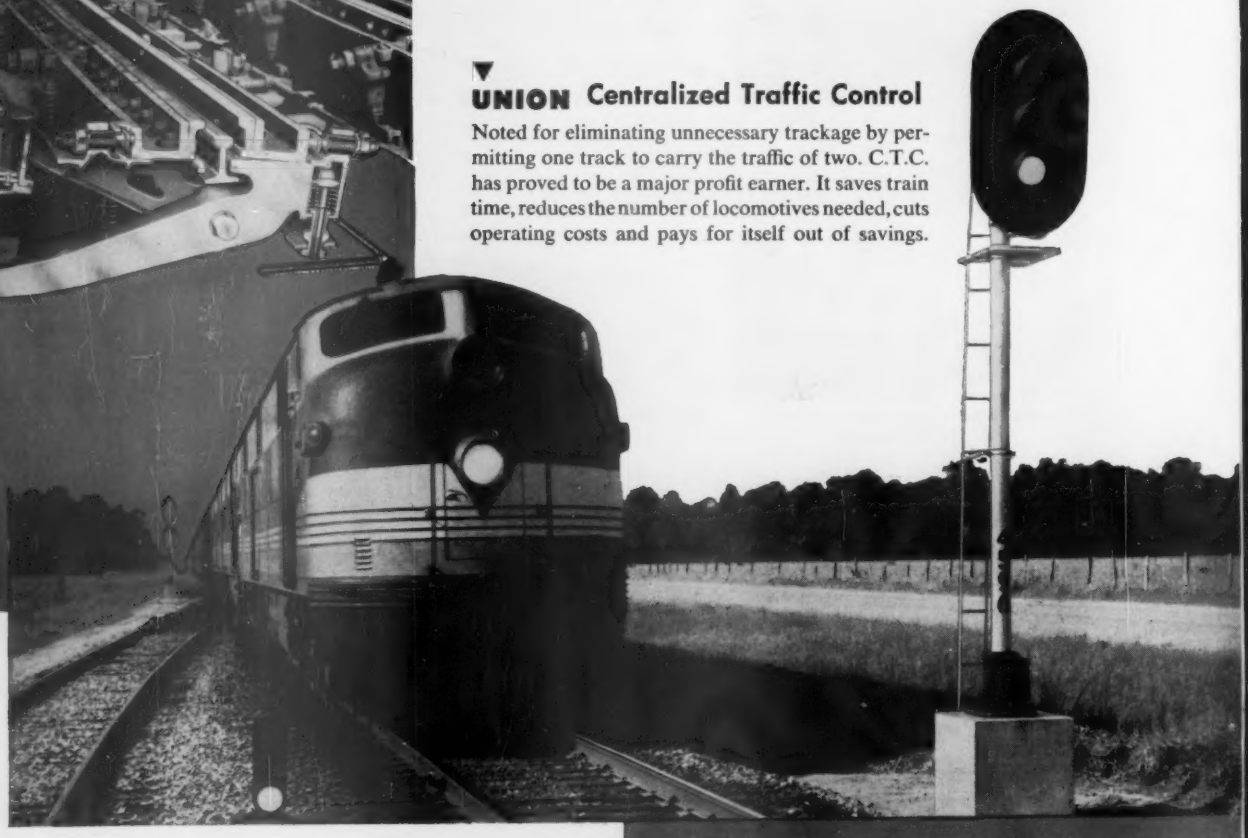
Noted for eliminating unnecessary trackage by permitting one track to carry the traffic of two. C.T.C. has proved to be a major profit earner. It saves train time, reduces the number of locomotives needed, cuts operating costs and pays for itself out of savings.



UNION Multiplex Code Control System

You can consolidate present interlockings for greater economies with this new system designed especially for remote control of interlockings. It is the fastest all-relay coded interlocking control system yet developed, has the capacity for large and busy interlockings, and a number of interlockings can be controlled from one point over one pair of line wires.

Call or write for more information on this equipment that pays for itself out of savings.

UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

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August 15, 1955 **Vol. 139, No. 7**

Week at a Glance

FORUM: What's wrong about "selective rate-cutting?" The truckers have practiced it freely, and are continuing to do so; likewise, the public utilities. Why shouldn't railroads both want, and be allowed, to try it? **31**

New LI cars are all air-conditioned, and offer many other advantages to the patrons of a railroad that has made great strides in its first year of "redevelopment." **32, 34**

A new station for only $11,000 has been obtained by the GN-NP at Davenport, N.D., by use of all-frame construction and inexpensive materials, and elimination of "frills." **35**

Radio helps the Lackawanna to improve service by reducing freight-train delays between Scranton and East Buffalo. **37**

The cars shippers want can be pretty well determined by their replies to a special *Railway Age* questionnaire covering shipper preferences as to both physical characteristics and operating performance of railway equipment. **39**

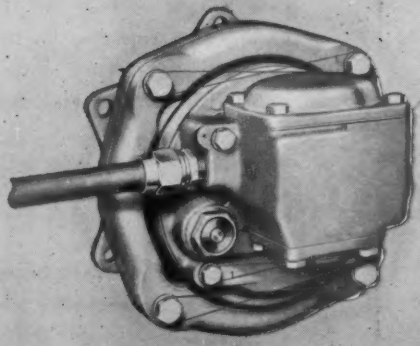
Mobilization need is 320,000 cars! That many new freight-carrying units should be built during a three-year period of full mobilization, the so-called Conway Committee reports. To meet the need, it recommends advance stockpiling of component parts and allocation of additional material during the mobilization period. **48**

BRIEFS

Continuation of fast amortization for railroad facilities has been recommended to ODM by Commissioner Clarke, who handles defense transport matters at ICC. The recommendation is understood to have been for a

Reduce the need for wheel turning with this reliable anti-wheel-slide device

the Westinghouse AP Mechanical Pneumatic Decelostat® Controller for passenger cars



Westinghouse Air Brake COMPANY

AIR BRAKE DIVISION WILMERDING, PA.

Current Statistics

Operating revenues, six months	
1955	$4 820,336,062
1954	4,591,252,244
Operating expenses, six months	
1955	$3,645,751,965
1954	3,683,934,579
Taxes, six months	
1955	$ 521,641,721
1954	440,067,072
Net railway operating income, six months	
1955	$ 526,830,860
1954	342,337,672
Net income, estimated, six months	
1955	$ 416,000,000
1954	232,000,000
Average price railroad stocks	
August 9, 1955	91.75
August 10, 1954	70.37
Carloadings, revenue freight	
Thirty weeks, 1955	21,032,637
Thirty weeks, 1954	19,133,831
Average daily freight car surplus	
Wk. ended August 6, 1955	4,854
Wk. ended August 7, 1954	84,439
Average daily freight car shortage	
Wk. ended August 6, 1955	14,891
Wk. ended August 7, 1954	411
Freight cars on order	
July 1, 1955	27,102
July 1, 1954	13,860
Freight cars delivered	
Six months, 1955	17,111
Six months, 1954	23,602
Average number of railroad employees	
Mid-June 1955	1,075,084
Mid-June 1954	1,073,847

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Week at a Glance CONTINUED

temporary period—until the commissioner either confirms or changes it after study of a commission staff survey of transport needs. If ODM should decide to end the program, Mr. Clarke asked that notice be given at least 90 days prior to the closing date.

An indication of growing interest in the September meetings of the Coordinated Mechanical Associations is a 20% increase in the number of booths (313 vs. 256) taken by exhibitors this year over 1951.

Negotiations resumed in Chicago on August 9 in the 40-hr week demand case of the Brotherhood of Locomotive Firemen & Enginemen. President H. E. Gilbert said, after studying the Presidential Emergency Board report (*Railway Age*, August 8, page 14), that the report contained "suitable springboards for renewed conferences with management." Carriers have agreed to accept the recommendations but they based acceptance "on the principle that all of the board's recommendations will be made effective and not just part of them."

In Kansas City on August 23 and 24 Piggy-back, Inc., will demonstrate to members of the Western Railroad Truck Line Association its new car especially designed for trailer-on-flat car service. This car was described in *Railway Age* March 7, page 45.

The U.S. Post Office Department was the railroads' "third best customer" last year, it says. It paid $307.5 million to 36 Class I roads for transportation of mail, and only coal and lumber among the usual commodity groupings yielded more revenue.

A search is on for means to recover economically millions of tons of low-grade iron ore available in northern Wisconsin. Mining and metallurgical engineers from the University of Wisconsin, having explored other methods, are now concentrating on a magnetic process of ore separation. Their efforts, if successful, will open up the Gogebic range to many new mining operations.

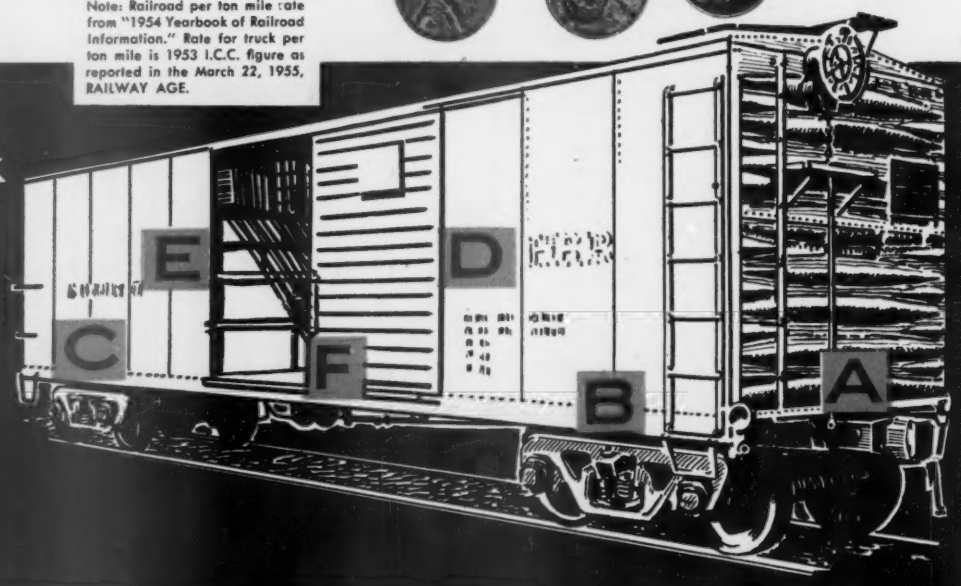
RAILROADS average $.01478 per ton mile

TRUCKERS, carrying premium freight average $.0572 per ton mile

(Almost 4 times what the railroads get)

Note: Railroad per ton mile rate from "1954 Yearbook of Railroad Information." Rate for truck per ton mile is 1953 I.C.C. figure as reported in the March 22, 1955, RAILWAY AGE.

Win back this Premium Traffic with the



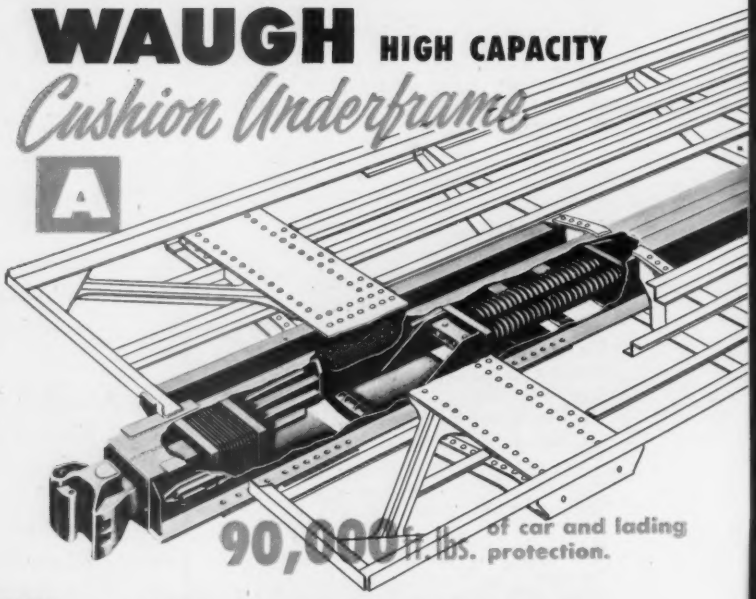
'PREMIUM' CAR

- **A** Cushion underframe
- **B** Improved trucks
- **C** Improved bearings and lubrication
- **D** Wide doors
- **E** Load retainer
- **F** Heavy surfaced floor

At the 1953 average per ton mile of $.01478, it is estimated that the average freight car earns $13.91 per working day. With truckers, hauling premium freight, able to average $.0572 per ton mile, almost four times the railroad per ton mile rate, is it too much to assume that the premium car, hauling premium freight, could earn at least twice the present railroad average? On this assumption, the premium car would practically amortize the extra cost in six months time!*

**150 (working ddys) times $13.91 = $2,086.50*

WAUGH HIGH CAPACITY *Cushion Underframe*



90,000 lb. of car and lading lbs. protection.

WAUGH EQUIPMENT COMPANY, 420 Lexington Ave., New York 17, N. Y.

Chicago • St. Louis • Canadian Waugh Equipment Company, Montreal

"We'll Need More Than Technology"

Railroads must develop skills in human relations to win public understanding and more favorable legislation, SP's operating chief tells West Coast superintendents

"On the technological side of railroading, we are driving ahead with full power. The modern paycheck alone is a miracle of efficiency. But there is another aspect of railroading with which I am afraid too few of us are familiar. This is the social and political environment in which we exist."

The speaker: J. W. Corbett, operating vice-president of the Southern Pacific. His audience: The American Association of Railroad Superintendents at the annual meeting for West Coast members, held in San Francisco, August 4-5.

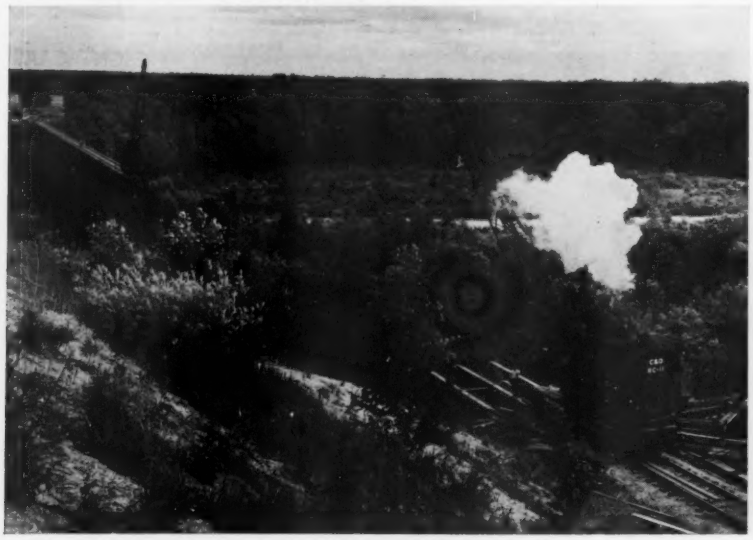
Mr. Corbett said "all thinking persons concede" the railroads' importance in the national transportation picture and that the nation's economy and our free enterprise system depend—"to a large extent"—upon the railroad industry's health. "Nevertheless," he continued, "there are strong forces at work which are inimical to that health. Not by technological forces alone can these forces be met. To remain strong and free effectively to perform our vital role in the national economy, we need the intelligent understanding of an informed public and government.

"It is in the field of employee and public relations that we must look for our greatest benefits. I think that both further technological developments and a more favorable political environment will come from improved employee and public relations. And they can come only from better supervision and management."

Greatest Step—Mr. Corbett said that, to date, the "greatest forward step" had been in the field of safety. "Safety has brought us much favorable publicity, gained us a measure of good will from our employees and cooperation from their unions, saved us millions of dollars, helped us to understand our job of supervision and, best of all, saved untold thousands of people from injury and even death."

He said that in the past, supervisors have been "so deeply concerned with the actual running of our railroads that they have all too frequently neglected those other aspects of successful supervision which include things like safety, employee relations and the attitude of the public toward our enterprise."

"Most of our railroads now have human relations and personnel programs, and can report general success as far as they have gone. Certainly we all realize that the need for adequate leadership is greater and we are finding out that, while some leaders are born, some must be made and all can be developed and improved. It seems to me that the sort of leaders we need must have a broader outlook, fuller comprehension and a deeper understanding of both physical and human engineering than was ever the case before."



NORTHWEST MICHIGAN LANDMARK, 67-year-old High Bridge, is being dismantled. The span, five miles north of Wellston, crosses the Manistee river on the old Chesapeake & Ohio line between Baldwin and Kaleva. It was abandoned earlier this year when the C&O rerouted its trains from Baldwin into Manistee and Kaleva. C&O crews are dismantling the 1,170-ft span, which towers 98 ft in the air. High Bridge, built in 1888 by the Chicago & West Michigan, was rebuilt in 1911 by the Pere Marquette, which subsequently was absorbed by the C&O.

Rates & Fares

Tariff Group Issues 15th Progress Report

The Railroads' Tariff Research Group has issued its fifteenth progress report, which includes Freight Tariff Improvement Bulletins 79 to 91, inclusive.

The bulletins prescribe tariff specifications approved at the latest joint meetings of the railroads' Administrative Committee and the Cooperating Committee of the National Industrial Traffic League. The meetings were held in Chicago March 27 and 28, and in Washington June 27 and 28.

Bulletin 79 standardizes methods employed to denote expiration dates of rates. Bulletin 80 makes standard the 28300-case plan of expressing rate basis numbers in terms of short-line distances between base points. Because the alphabetical arrangement of stations makes station index numbers superfluous, Bulletin 81 directs that the station index numbers in National Rate Basis No. 1 be omitted in the reissue of that publication.

Rate Tables—Bulletin 82 standardizes arrangements for showing the unit of weight to which a published rate is subject. Bulletin 83 recommends that the setting up of rate tables in station geographical order be discontinued and that such rate tables be set up in station (or base point) alphabetical order by states. Bulletin 84 relates to rate tables in

which stations are identified by index number only, and it requires that station names also be shown.

In Bulletin 85, the joint committee took an initial step in the direction of favoring specific rate publication over the expression of rates in the form of mileage scales which require the tariff user to compute distances from other publications. The step is a declaration of policy urging that rates be published on a point-to-point or group-to-group basis.

Bulletin 86 requires that all "miscellaneous" rates in a sectional tariff be gathered togther along with other rates with which they are to have alternative application and published in section 1. It also stipulates that section 1 will not alternate with other sections, except when the ICC permits it in individual cases. And it limits to one the number of "general" rate sections which a tariff may contain.

Limit Alternation—Bulletin 87 is designed to limit alternation of commodity rates with class rates to cases "where there is some basis, in fact, for such alternation." Bulletin 88 directs that commodity items in tariffs which publish exceptions to the Uniform Classification be numbered according to the covering item in the Uniform Classification.

Bulletin 89 provides that partial cancellation which contracts the coverage of a tariff must include publication of a revised title page consistent with what "live" matter remains. Bulletin 90 prescribes reference marks for the exclusive purpose of making references to fourth-section orders, to rules affecting unnamed points in territory between named points, and to intermediate-point rules.

Bulletin 91 requires the employment of direct methods for referring from one provision to another in the same tariff. Expressly forbidden are references which send the tariff user to one place only for the purpose of sending him to another.

Figures of the Week

Diesel Oil Purchases Up 10% in First Four Months

Purchases of diesel fuel in the first four months this year were 10% greater than in the same period in 1954, according to the July issue of "Transport Economics" of the Bureau of Transport Economics and Statistics, Interstate Commerce Commission.

Railroads purchased 1,141,888,000 gallons of diesel fuel in the 1955 period, as against 1,037,864,000 last year. Average cost per gallon of the oil declined by 1.1%—from 9.8 cents to 9.7 cents in the four-month period.

For the same period, the report states, coal purchases declined 18.5%, comparing 1955 with 1954. Class I roads purchased 5,402,000 tons of coal through April this year as against 6,619,000 last year. Of the 1955 purchases, 5,221,000 tons were bought at mines and 181,000 tons at places other than mines, against 6,472,000 tons and 147,000 tons, respectively, in 1954.

Average cost per ton of coal at the mines this year was $4.56, down 3.2% from the average cost of $4.71 last year. At places other than at mines, average cost per ton was $8.67 this year compared with $9.10 in 1954, a price drop of 4.7%.

Class I railroad purchases of fuel oil declined 21.1% in the period covered in the report, from 5,660,000 barrels in 1954 to 4,468,000 barrels this year. Gasoline purchases also dropped, by 2.5%, from 15,107,000 gallons last year to 14,733,000 this year, while purchases of electric current rose by 2.5%, from 711,984,000 kilowatt-hours for the 1954 period to 729,777,000 kwh this year.

Average cost of fuel oil purchased during the four-month span rose by 5% this year, from $2.02 per barrel to $2.12 per barrel. Gasoline costs declined by 0.2%, from 19.48 cents per gallon in 1954 to 19.45 cents this year, while electric current was down 3.4%, from 1.152 cents per kwh in 1954 to 1.113 cents per kwh this year.

May Accidents

The Interstate Commerce Commission has released its Bureau of Transport Economics and Statistics' preliminary summary of railroad accidents for May and this year's first five months.

The compilation, subject to revision, follows:

Item	Month of May		5 months ended with May	
	1955	1954	1955	1954
Number of train accidents*	663	566	3,259	3,074
Number of accidents resulting in casualties	35	32	173	204
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	71	75	261	284
Injured	64	91	276	331
Passengers on trains:				
(a) In train accidents*				
Killed	—	—	—	—
Injured	13	4	177	71
(b) In train-service accidents				
Killed	1	3	3	5
Injured	110	137	659	700
Travelers not on trains:				
Killed	—	—	5	2
Injured	58	73	383	359
Employees on duty:				
Killed	15	17	91	87
Injured	1,346	1,238	6,725	6,435
All other nontrespassers:**				
Killed	97	120	563	585
Injured	323	375	2,198	2,149
Total—All classes of persons:				
Killed	184	215	923	963
Injured	1,914	1,918	10,418	10,045

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of $350 or more to railway property in 1954. Beginning January 1, 1955, this minimum was raised to $375. Only a minor part of the total accidents result in casualties to persons, as noted above.

** Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Persons:				
Killed	89	100	523	541
Injured	217	267	1,536	1,501

Freight Car Loadings

Loadings of revenue freight in the week ended August 6 totaled 765,452 cars, the Association of American Railroads announced on August 11. This was a decrease of 30,319 cars, or 3.8%, compared with the previous week; an increase of 97,860 cars, or 14.7%, compared with the corresponding week last year; and a decrease of 19,897 cars, or 2.5%, compared with the equivalent 1953 week.

Loadings of revenue freight for the week ended July 30 totaled 795,771 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, July 30

District	1955	1954	1953
Eastern	136,193	110,532	136,279
Allegheny	156,239	124,621	160,158
Pocahontas	62,376	50,528	59,969
Southern	121,772	113,368	122,772
Northwestern	137,110	114,549	135,391
Central Western	123,332	115,406	121,350
Southwestern	58,749	54,613	57,835
Total Western Districts	319,191	284,568	314,576
Total All Roads	795,771	683,617	793,754
Commodities:			
Grain and grain products	65,666	58,617	52,126
Livestock	5,680	5,873	6,866
Coal	136,412	109,329	133,495
Coke	12,181	7,031	12,774
Forest Products	47,705	38,671	48,684
Ore	87,144	68,148	96,078
Merchandise l.c.l.	67,327	60,164	66,692
Miscellaneous	373,656	335,784	377,039
July 30	795,771	683,617	793,754
July 23	786,435	684,281	780,699
July 16	799,040	694,545	791,414
July 9	652,680	569,562	721,454
July 2	696,734	618,559	670,273
Cumulative total, 30 weeks	21,032,637	19,133,831	22,121,369

Equipment & Supplies

FREIGHT CARS

The **Ann Arbor** has ordered 100 50-ton 40-ft PS-1 box cars from Pullman-Standard, for delivery during March 1956.

The **Chicago & Eastern Illinois** has ordered 200 50-ton box cars from ACF Industries.

The **Great Northern** is converting 24 flat cars into a special compartmentalized design to handle shipments of aluminum ingots between two separated plants of the Kaiser Aluminum & Chemical Corp. in the Spokane, Wash., area. The work is being carried out by GN shop forces at Hillyard (Spokane) shops. Each car will be capable of holding 28 ingots weighing 5,000 lb apiece. The design will permit loading the ingots with lift trucks.

The **Lackawanna** is inquiring for 1,000 box cars and 200 covered hopper cars.

The **Milwaukee** has ordered 100 cabooses from the Thrall Car Manufacturing Company. Delivery is scheduled to begin in November and con-

tinue for about three months. The cabooses will be radio-equipped and will have Duryea underframes.

MARINE

The **Lackawanna** is inquiring for five diesel tugboats.

MISCELLANEOUS

Korea.—The International Cooperation Administration has authorized Korea to spend $500,000 of its ICA allocations for ties for the Korean National Railways. The authorization is expected to finance the purchase of more than 120,000 cross ties, 3,000 bridge ties and 133 sets of switch ties.

The **Lackawanna** is inquiring for 73 highway semi-trailers for use in its piggyback freight service.

LOCOMOTIVES

Alco Announces Orders For Export Locomotives

Alco Products, Inc., has announced the following export orders for diesel-electric locomotives:

For the Spanish government—14 "World" locomotives, all-purpose units designed exclusively for overseas service (*Railway Age*, June 22, 1953, page 12); for Australia—six similar units, to be erected under license by A. E. Goodwin, Ltd., of Sydney; for the Pacific of Mexico—24 900-hp switchers; and for the North Western Railways of Pakistan—17 1,600 road-switchers costing approximately $2,500,000 (already shipped) and two 1,600-hp "World" locomotives (*Railway Age*, July 4, page 15).

Sand Springs Line Converting to Diesel Power

The list of short lines using straight electric power continues to dwindle.

Latest to announce plans for conversion to diesel motive power is the 32-mile Sand Springs, which operates from Tulsa, Okla., through a number of suburban communities to Sand Springs. It is the last trolley-operated road in Oklahoma.

Conversion of the line is expected to cost $225,000—principally for new locomotives. The company expects to complete the conversion by January 1. Passenger service was discontinued at the beginning of this year.

The **New Haven** has ordered from the Electro-Motive Division of General Motors Corporation 10 1,200-hp diesel-electric switching units, at a cost in excess of $1 million, for delivery in December 1955 and January and February 1956. The New Haven's intention to purchase these units was reported in *Railway Age*, July 25, page 8.

BURLINGTON GALLERY CARS—AIR-CONDITIONED

The description of the Southern Pacific's new double-deck commuter cars (*Railway Age*, July 18, page 28), stated that the SP cars are similar to those owned by the Burlington "but have more space for luggage and parcels and include washroom facilities, air conditioning, etc. . . ."

The inference that Burlington gallery cars are not air-conditioned is not correct. All of the Burlington's present fleet of 40 double-deck commuter cars are fully air-conditioned, as will be the 10 additional similar cars now on order.

PASSENGER CARS

The **Chicago Transit Authority** has awarded a contract to the St. Louis Car Company for conversion of an additional 80 PCC-type street cars into rapid transit units, at a total cost of $3.3 million. Delivery is scheduled within 300 days.

Supply Trade

Goff Smith, manager of railway specialties sales, **American Steel Foundries,** has been appointed executive vice-president of **Griffin Wheel Company,** a subsidiary. **Roger G. Kimber** succeeds Mr. Smith.

A six-acre warehousing area for fabrication and storage of steel sheet piling, pipe and railroad trackage has been opened at 1200 Allene ave., S.W., Atlanta, by **L. B. Foster Company,** following the recent opening of an Atlanta office (*Railway Age*, June 20, page 13).

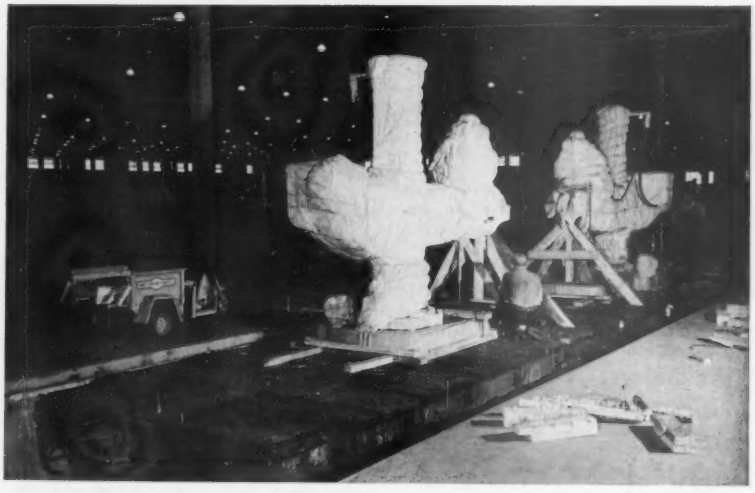
Metal & Thermit Corp. is building a combined general office, research and distribution center on a 17-acre tract in Rahway, N.J. Scheduled for completion in April 1956, it will replace existing warehouses and sales offices in Newark and Philadelphia. Executive offices will be moved at that time to new quarters at 100 Park ave., New York.

Griscom Bettle, Jr., a member of the sales project staff of the **Budd Company,** specializing in demonstration of the Budd rail diesel car, has been appointed sales representative of the Railway division.

Erwin W. Wolf has opened an office in the Paul Brown building, St. Louis, under the name **Wolf Enterprises, Inc.,** to deal in rails and railway equipment, iron and steel.

John R. Tuttle, vice-president and treasurer of **Crouse-Hinds Company,** was elected president and chairman of the board, on the retirement of **William L. Hinds** as chairman, and **Albert F. Hills** as president. **W. C. Blanding,** executive vice-president, has also retired from active management.

William C. Polk, formerly sales manager of the Railroad division,



GETTING READY for the Machine Tool Show, to be held in Chicago's International Amphitheatre September 6-17, workmen prepare to unload two radial drills at newly completed unloading platform within the amphitheatre. Some 523 machine tools to be displayed will require special handling by trained riggers. Because the amphitheatre has no overhead crane, locomotive cranes working beneath restricted clearances are doing much of the heavy lifting. The show will involve at least 300 carload and 1,000 truckload shipments, according to a statement by the show committee of the National Machine Tool Builders' Association.

HERB J. SMITH, Kansas City district sales manager of Gustin-Bacon Manufacturing Company, who has been appointed manager of the railroad sales department, to succeed George M. Seymour, resigned.

Clark Equipment Company, has joined the **Hi-Tender Company,** Leavenworth, Wash., as general sales manager.

Equipment Manufacturing, Inc., Detroit, has purchased the assets of **Metal Fabricating Company,** also of Detroit, which will become a division of the former company and will continue to produce heavy stampings, railroad freight car equipment and parts for trucks and trailers.

D. K. Wirth has been named branch manager of the new Detroit industrial lift truck sales and service branch, recently opened by **Yale & Towne Manufacturing Co.** at 4466 Woodward ave. Mr. Wirth was formerly president of **Michigan Materials Handling Corporation.**

Thomas J. Rowe, resident comptroller of **Shippers' Car Line Corporation,** a subsidiary of **ACF Industries, Inc.,** has been appointed vice-president.

F. H. Tout, eastern sales manager of **Griffin Wheel Company,** has retired after 52 years of service.

Percy H. Waller has been appointed vice-president, Railroad division, **Midland Industries, Inc.** He was formerly associated with **Pullman-Standard Car Manufacturing Company.**

Financial

Firm to Buy Short Line

The Marathon Corporation, Menasha, Wis., food packing and household products manufacturer, has announced its intention to purchase the 51-mile Meridian & Bigbee from the Reconstruction Finance Corporation. A Marathon spokesman said his company had purchased a plant site near Myrtlewood, Ala., which is the eastern terminus of the M&B. The site is served by the M&B.

Florida East Coast.—*Miami Union Station.*—This road, John W. Martin, trustee, has asked the ICC to dismiss a petition of the city of Miami, which sought to have the FEC and Seaboard join in construction or, at least, use of a union station at Miami. The Seaboard filed a similar application for dismissal earlier (*Railway Age*, July 11, page 58). The FEC asserted that the ICC has no jurisdiction to grant the Miami request—which would entail abandonment of FEC trackage and other facilities in Miami—because such abandonment would be contingent on an order by the Florida Railroad & Public Utilities Commission requiring the FEC and Seaboard to join in the union station venture. The FEC motion to dismiss noted that the Florida commission has already approved a new FEC station in the Buena Vista area and has rejected the city's plan for a union depot, although, the FEC admitted, this issue has been reopened before the state body.

Spartanburg Terminal.—*Tunnel Project.*—An ICC examiner, John S. Prichard, has recommended rejection of the plan of the Atlantic Coast Line "family" to provide switching services at Spartanburg, S.C., by this terminal company through construction of an 800-ft tunnel and 4,166 ft of track. The Terminal proposed to construct the line and tunnel, passing beneath the main line of the Southern in Spartanburg, raising funds for the construction by sale of 1,000 shares of capital stock at $25 per share to the Coast Line, the Louisville & Nashville and the Charleston & Western Carolina (*Railway Age*, October 11, 1954, page 11). Those three roads would also guarantee payment of six non-collateral notes totaling $1,000,000, which the Terminal would issue. Examiner Prichard recommended that Division 4 deny the application for new construction (*Railway Age*, May 17, 1954, page 13) and disapprove the financial transactions. He cited in his proposed report testimony by the Southern that the proposed tunnel would interfere with contemplated grade reductions on its line at Spartanburg. Also, he held that the Piedmont & Northern, which sought to connect with the proposed Terminal tunnel line and to operate over it, would be left open to discrimination by Coast

(*Continued on page* 52)

A WHEELBARROW FULL OF MONEY—$771,096.97 in bills and coin—was used by the Railroad Community Committee of Toledo to dramatize payment of 1954 taxes by the 11 railroads serving the city. Here, handing part of the payment to Lucas County Treasurer Daniel P. Holzemer is Committee Chairman Russell Spore, of the Pennsylvania (third from left, standing). The picture includes, in the back row, left to right: Fred Shelton, Nickel Plate; Mr. Holzemer; Mr. Spore; County Auditor Charles Austin; Paul Campbell, PRR; Phil Schorr, Wabash; Robert Hons, Detroit, Toledo & Ironton; W. J. Stallbaum, Ann Arbor; and James L. Robinson, New York Central. Kneeling, in the same order, are: Slade Freer, Jr., Baltimore & Ohio; Richard Wiley, Chesapeake & Ohio; and William Waggoner, of the Baltimore & Ohio.

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF JUNE AND SIX MONTHS OF CALENDAR YEAR 1955

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1955	Total 1954	Operating Expenses: Maint. Way and Structures: Total 1955	Total 1954	Deprec. and Retirements	Maint. Equipment: Total 1955	Total 1954	Deprec. and Retirements	Traffic	Transportation	Total 1955	Total 1954	Operating ratio 1955	Operating ratio 1954	Net from railway operation	Railway tax accruals	Net railway operating income 1955	Net railway operating income 1954
Akron, Canton & Youngstown	June	171	$512	....	$522	$440	$70	$72	$6	$59	$67	$14	$38	$138	$349	$346	66.8	78.5	$173	$82	$57	$38
	6 mos.	171	2,930	....	2,985	2,518	414	388	36	353	385	83	241	826	2,078	2,037	69.6	80.9	907	424	323	172
Atchison, Topeka & Santa Fe	June	13,098	42,476	$4,179	51,264	47,011	7,168	6,668	645	9,286	8,005	1,967	1,219	16,241	36,012	33,122	70.2	70.5	15,253	7,849	6,378	6,306
	6 mos.	13,098	234,391	19,277	278,194	259,181	36,689	37,600	3,887	52,491	50,573	11,692	7,208	89,308	198,195	193,769	71.2	74.8	80,000	43,352	35,137	28,642
Atlanta & St. Andrews Bay	June	82	347	1	356	327	37	26	3	26	24	5	6	70	156	144	43.8	43.9	200	90	75	65
	6 mos.	82	2,064	5	2,107	1,893	238	148	16	171	134	32	37	398	957	845	45.4	44.6	1,150	524	417	374
Atlanta & West Point*	June	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	6 mos.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Western of Alabama*	June	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	6 mos.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Atlantic & Danville	June	205	128	....	130	103	32	41	2	11	4	5	10	48	110	110	84.6	106.8	20	9	—11	—36
	6 mos.	205	861	....	876	846	167	188	14	62	65	29	60	284	630	671	71.9	79.3	247	52	41	—33
Atlantic Coast Line	June	5,288	10,604	1,182	12,735	12,058	2,484	2,454	159	2,957	2,857	598	404	4,940	11,224	10,929	88.1	90.6	1,511	300	724	592
	6 mos.	5,335	67,601	9,285	83,523	82,036	14,042	12,466	997	17,906	15,898	3,588	2,413	29,830	67,865	63,840	81.3	77.8	15,659	6,625	6,181	6,635
Charleston & Western Carolina	June	343	587	....	596	569	159	183	6	117	104	42	20	154	462	488	77.5	85.9	134	45	90	28
	6 mos.	343	2,995	2	3,067	3,481	814	892	58	647	612	255	113	885	2,542	2,699	82.9	77.5	526	225	263	381
Baltimore & Ohio	June	6,178	32,963	1,746	37,489	32,737	4,962	3,827	502	8,092	6,684	1,009	890	14,395	29,695	26,463	79.2	80.8	7,794	3,025	3,229	3,120
	6 mos.	6,181	179,814	9,505	203,209	188,239	23,774	21,891	2,895	38,401	37,253	6,076	5,207	82,358	160,173	153,453	78.8	81.5	43,036	14,288	20,708	16,920
Staten Island Rapid Transit	June	29	204	56	264	240	45	50	11	24	24	2	2	131	237	239	89.9	92.2	27	39	—40	—55
	6 mos.	29	1,149	340	1,506	1,419	259	288	61	149	159	10	9	786	1,410	1,401	93.6	98.8	96	236	—286	—327
Bangor & Aroostook	June	602	801	29	872	734	200	200	20	248	220	101	23	263	802	766	92.0	104.4	70	77	234	107
	6 mos.	602	7,026	173	7,437	8,178	1,700	1,700	101	1,451	1,354	550	127	1,961	5,627	5,585	75.7	68.3	1,810	700	1,428	1,523
Bessemer & Lake Erie	June	208	2,802	4	2,842	2,630	177	227	19	575	536	136	28	495	1,386	1,349	48.8	51.3	1,456	898	872	870
	6 mos.	208	10,883	5	11,021	10,245	1,034	1,246	107	3,342	3,747	839	160	2,381	7,525	8,160	68.3	79.7	3,496	2,377	2,847	2,049
Boston & Maine	June	1,576	5,697	874	7,364	6,946	1,072	1,389	144	828	1,003	209	128	2,954	5,302	5,891	72.0	84.8	2,062	817	741	106
	6 mos.	1,576	32,317	4,883	41,671	41,143	6,139	7,788	873	5,513	6,311	1,200	711	17,927	32,364	35,304	77.7	85.8	9,307	3,731	2,586	—173
Cambria & Indiana	June	35	142	....	142	114	21	23	1	95	102	22	....	24	143	154	100.6	135.8	—1	78	90	64
	6 mos.	35	945	....	946	769	109	116	5	464	632	133	1	135	751	921	79.4	119.8	194	551	629	400
Canadian Pacific Lines in Maine	June	234	343	37	408	361	126	127	5	51	90	17	8	170	370	409	90.6	113.4	38	27	—17	—98
	6 mos.	234	3,657	265	4,091	3,682	640	604	33	764	681	104	50	1,652	3,197	2,818	78.1	76.5	894	177	474	455
Canadian Pacific Lines in Vermont	June	90	198	12	229	228	62	68	5	36	27	....	7	120	233	230	101.9	100.8	—4	13	—71	—76
	6 mos.	90	1,171	77	1,357	1,336	319	267	64	204	177	1	43	745	1,361	1,266	100.2	94.7	—3	75	—416	—364
Central of Georgia	June	1,764	3,067	139	3,497	3,263	617	523	59	598	539	138	170	1,333	2,908	2,713	83.2	83.1	589	229	302	311
	6 mos.	1,764	19,016	892	21,662	19,945	3,316	3,114	300	3,522	3,262	862	970	7,978	16,930	16,413	78.2	82.3	4,732	1,366	2,867	1,932
Central of New Jersey	June	613	4,225	449	5,041	4,735	672	718	193	842	771	178	72	1,944	3,735	3,715	74.1	78.5	1,306	459	671	328
	6 mos.	613	23,288	2,692	28,026	27,858	3,537	3,867	653	4,947	5,185	1,072	426	11,655	21,785	22,768	77.7	81.7	6,241	2,773	2,343	1,463
Central Vermont	June	422	879	54	1,002	922	208	274	16	88	87	11	19	364	713	792	71.2	85.9	289	43	130	—11
	6 mos.	422	4,763	348	5,523	5,430	1,018	1,209	99	628	645	67	104	2,095	4,072	4,426	73.7	81.5	1,451	245	525	166
Chesapeake & Ohio	June	5,111	31,046	808	33,708	25,917	3,814	3,870	380	5,687	4,806	1,500	708	10,141	21,458	19,298	63.7	74.5	12,250	5,942	6,509	4,210
	6 mos.	5,114	166,083	3,728	178,474	148,184	21,134	21,865	2,673	30,588	30,269	9,041	4,122	57,022	120,382	115,149	67.5	77.7	58,092	26,235	33,326	22,177
Chicago & Eastern Illinois	June	868	2,447	254	2,950	2,736	370	359	28	546	400	133	136	1,127	2,365	2,142	80.2	78.3	584	67	321	298
	6 mos.	868	14,167	1,008	16,625	16,113	2,167	2,073	189	2,874	2,804	799	811	6,393	13,320	13,023	80.1	80.8	3,305	415	1,890	1,645
Chicago & Illinois Midland	June	130	530	....	545	655	64	55	7	117	132	23	31	188	449	475	82.5	72.6	95	59	27	56
	6 mos.	130	3,716	5	3,803	3,593	407	387	48	731	840	139	196	1,090	2,706	2,916	71.1	81.2	1,097	605	399	161
Chicago & North Western	June	7,873	13,327	2,157	17,346	16,547	2,755	2,679	346	2,946	3,122	841	384	7,446	14,266	14,289	82.2	86.4	3,080	1,103	1,189	466
	6 mos.	7,873	72,779	10,227	93,509	89,041	14,806	14,405	2,016	17,293	17,115	5,019	2,322	42,602	82,167	81,489	79.9	91.5	11,343	6,518	777	—2,666
Chicago, Burlington & Quincy	June	8,807	16,682	1,810	20,825	19,704	3,845	3,932	429	3,340	3,314	691	537	7,918	16,325	16,459	78.4	83.5	4,500	2,276	2,229	1,425
	6 mos.	8,841	94,858	8,796	116,283	121,707	17,314	16,111	2,394	20,224	20,759	4,882	3,093	46,104	91,827	91,010	79.0	74.8	24,456	12,487	11,176	13,548
Chicago Great Western	June	1,470	2,558	17	2,725	2,560	451	400	49	426	377	121	109	826	1,897	1,789	69.6	69.9	828	307	322	325
	6 mos.	1,470	15,565	46	16,565	15,965	2,564	2,329	286	2,428	2,486	724	670	5,073	11,222	10,957	67.7	68.6	5,343	2,133	2,086	2,015
Chicago, Indianapolis & Louisville	June	541	1,681	54	1,884	1,592	316	247	19	272	268	74	97	660	1,455	1,310	77.2	82.3	429	162	175	100
	6 mos.	541	9,579	384	10,802	10,142	1,660	1,544	114	1,617	1,544	438	572	3,819	8,340	7,949	77.2	78.4	2,462	670	990	887
Chic., Milw., St. Paul & Pacific	June	10,641	17,964	1,263	21,448	20,063	4,654	4,461	434	3,971	4,173	897	508	7,659	17,597	18,011	82.0	89.8	3,851	1,451	1,958	—93
	6 mos.	10,641	97,199	6,045	115,237	113,426	20,176	19,431	2,388	23,606	25,172	5,343	2,892	45,115	97,822	100,313	84.9	88.4	17,415	8,236	6,033	1,098
Chicago, Rock Island & Pacific	June	7,920	13,827	1,566	16,877	17,820	2,658	2,530	224	2,555	2,613	575	485	5,967	12,489	12,489	74.0	70.1	4,388	1,857	1,904	2,120
	6 mos.	7,921	75,731	8,347	92,546	93,037	12,231	12,152	1,418	15,598	15,932	3,435	2,873	34,413	70,196	70,977	75.9	76.3	22,350	9,139	9,305	8,670
Chicago, St. Paul, Minn. & Omaha	June	1,616	2,343	157	2,706	2,725	487	460	42	447	401	81	65	1,294	2,395	2,317	88.5	85.0	311	172	—220	—11
	6 mos.	1,616	13,606	815	15,603	15,391	2,492	2,416	272	2,421	2,432	508	407	7,743	13,830	13,682	88.6	88.9	1,773	1,038	—1,083	—830
Clinchfield	June	304	1,861	....	1,873	1,703	269	339	20	315	226	95	55	370	1,072	1,017	57.2	59.7	801	184	731	534
	6 mos.	304	8,839	....	8,889	10,146	1,281	1,875	121	1,564	1,886	553	265	1,800	5,149	6,607	57.9	65.1	3,740	1,058	3,312	2,352

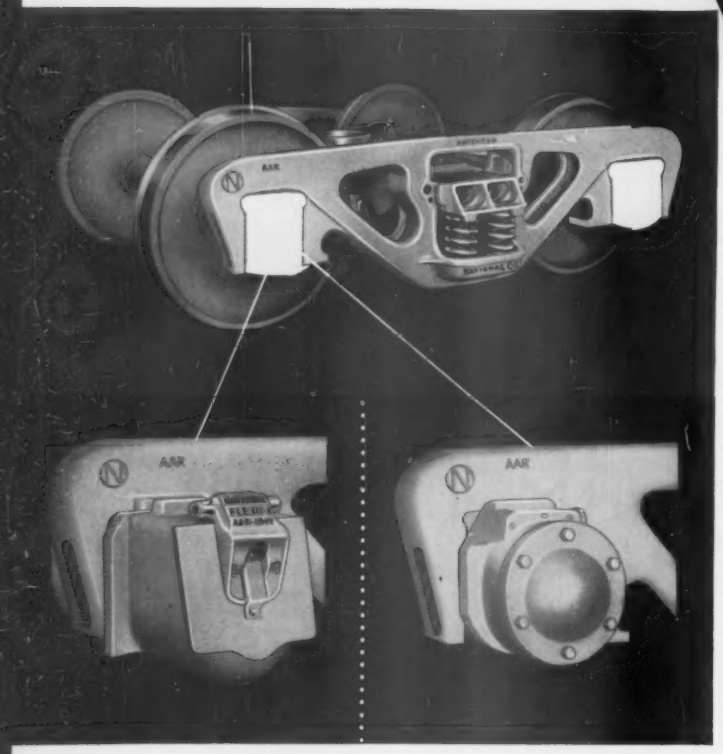
*Because of a strike figures for the A&WP and WofAla are not available.

(Table continued on page 13)

To File Cut Here

MEMO

To those contemplating future purchase of roller bearing freight trucks



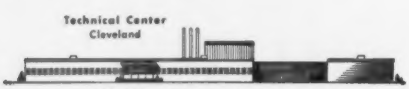
Should you be considering roller-bearing freight trucks but feel the investment cannot be made at this time—the National C-1 truck with "jaw-construction" may be the answer to your dilemma. Here's why:

You can order new cars *now*, equipped with C-1 trucks and National Journal Boxes with jig-ground lid faces. Then when you upgrade your cars to roller bearings in the future, these solid-bearing boxes can be replaced with new roller assemblies.

Meantime you get all the superior riding qualities of National C-1 trucks . . . all the extra protection to equipment and lading . . . all the extra-low maintenance because friction wedges in C-1 trucks have full-width bearing in side frame pockets.

Think of tomorrow *today*—and spread your investment in modern roller-freight trucks with jaw-construction National C-1 trucks.

Circular 5155 "Facts About the C-1 Truck" available on request. AA-908



"Progress through Research"

NATIONAL MALLEABLE and STEEL CASTINGS COMPANY

Cleveland 6, Ohio

COUPLERS • YOKES • DRAFT GEARS • FREIGHT TRUCKS • SNUBBER PACKAGES • JOURNAL BOXES and LIDS

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF JUNE AND SIX MONTHS OF CALENDAR YEAR 1955

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total 1955	Total (inc. misc.) 1954	Operating Expenses: Maint. Way and Structures: Total 1955	Total 1954	Deprec. and Retirements	Maint. Equipment: Total 1955	Total 1954	Deprec. and Retirements	Traffic	Transportation	Total 1955	Total 1954	Operating ratio 1955	Operating ratio 1954	Net from railway operation	Railway tax accruals	Net railway operating income 1955	Net railway operating income 1954
Colorado & Southern	June	719	1,154	63	1,348	1,158	234	187	—3	175	263	41	30	466	969	968	71.9	83.6	379	189	148	80
	6 mos.	721	6,263	369	7,367	6,579	968	868	91	988	1,362	248	186	2,658	5,177	5,283	70.3	80.3	2,189	1,107	903	576
Ft. Worth & Denver	June	1,037	1,680	168	1,997	2,126	307	284	34	273	272	44	60	624	1,374	1,344	68.8	63.2	624	209	278	357
	6 mos.	1,037	8,898	781	10,563	10,680	2,176	1,726	219	1,590	1,648	264	372	3,760	8,502	7,985	80.5	74.8	2,061	439	846	1,282
Colorado & Wyoming	June	40	213	....	332	235	81	17	20	21	26	11	1	108	224	151	67.5	64.0	108	63	44	37
	6 mos.	40	1,100	....	1,768	1,176	229	74	93	195	155	67	8	636	1,144	821	64.7	69.8	624	349	267	170
Columbus & Greenville	June	168	160	....	166	168	36	36	4	26	28	6	5	51	137	135	82.5	80.1	29	27	3	9
	6 mos.	168	868	....	901	959	193	176	22	157	155	37	31	289	778	750	86.4	78.3	123	101	24	59
Delaware & Hudson	June	792	4,227	131	4,502	4,200	554	609	51	707	723	177	98	1,496	3,057	3,104	67.9	73.9	1,445	555	948	753
	6 mos.	792	23,915	864	25,551	23,971	3,183	3,483	295	4,518	4,752	1,084	524	8,791	18,320	19,210	71.7	80.1	7,231	2,643	4,432	2,686
Delaware, Lackawanna & Western	June	962	5,811	778	7,274	6,471	863	772	151	1,050	1,094	331	192	3,127	5,525	5,323	76.0	82.3	1,749	835	918	583
	6 mos.	962	32,290	4,628	40,674	39,150	4,706	4,795	945	6,138	6,720	1,941	1,101	18,815	32,493	32,527	79.9	83.1	8,181	3,609	3,701	3,220
Denver & Rio Grande Western	June	2,165	5,841	267	6,335	5,761	906	1,090	99	947	922	280	183	1,851	4,165	4,188	65.8	72.7	2,169	1,027	1,072	1,156
	6 mos.	2,165	34,117	1,336	36,609	34,440	4,232	5,031	600	5,631	5,641	1,696	1,146	10,721	23,456	23,789	64.1	69.1	13,153	6,419	6,839	6,370
Detroit & Mackinac	June	232	191	....	194	168	35	40	2	31	26	9	5	43	127	123	65.2	73.1	68	55	16	20
	6 mos.	232	1,039	3	1,062	934	210	240	16	173	136	56	22	233	717	691	67.5	73.9	346	231	138	121
Detroit & Toledo Shore Line	June	50	606	....	655	579	86	80	4	65	57	21	17	195	377	352	57.5	60.9	278	83	76	58
	6 mos.	50	4,027	....	4,322	3,997	484	474	20	397	355	119	105	1,230	2,301	2,163	53.2	54.1	2,021	660	564	522
Detroit, Toledo & Ironton	June	464	1,739	....	1,798	1,364	290	298	23	289	272	92	40	441	1,130	1,049	62.9	76.9	668	340	368	225
	6 mos.	464	10,000	....	10,323	9,377	1,551	1,615	146	1,445	1,626	555	248	2,535	6,141	6,509	59.5	69.4	4,183	2,024	2,306	1,596
Duluth, Missabe & Iron Range	June	569	6,340	1	7,347	6,452	443	553	64	571	629	110	10	1,702	2,887	2,886	39.3	44.7	4,460	2,165	2,327	3,115
	6 mos.	569	15,624	3	18,179	16,000	2,217	3,238	374	3,240	4,664	659	60	5,762	12,158	14,611	66.9	91.3	6,021	3,083	2,811	—76
Duluth, South Shore & Atlantic	June	553	632	3	674	563	157	147	10	143	114	23	28	206	551	511	81.8	90.8	123	31	69	16
	6 mos.	553	3,500	20	3,707	3,392	787	745	64	804	777	138	169	1,191	3,083	2,989	83.2	88.1	623	165	335	172
Duluth, Winnipeg & Pacific	June	175	428	2	436	414	70	91	4	64	71	2	6	206	353	366	80.8	88.4	84	32	—6	—38
	6 mos.	175	2,837	5	2,875	2,602	371	440	26	411	403	13	35	1,282	2,146	2,160	74.6	83.0	729	223	61	—197
Elgin, Joliet & Eastern	June	236	3,648	....	4,434	3,819	261	216	30	546	416	111	33	1,488	2,492	2,153	56.2	56.4	1,941	900	665	1,287
	6 mos.	236	20,008	....	24,525	22,484	1,388	1,560	172	3,178	10,933	606	196	8,448	14,243	22,306	58.1	99.2	10,282	4,953	3,523	—2,515
Erie	June	2,224	12,046	653	13,818	12,994	2,193	2,161	217	2,139	2,045	512	354	5,788	11,131	10,754	80.6	82.8	2,687	951	1,029	883
	6 mos.	2,224	68,563	3,385	77,647	76,303	9,311	10,221	1,675	12,574	12,442	3,064	2,141	33,483	61,496	60,984	79.2	79.9	16,151	5,569	6,817	6,573
Florida East Coast	June	571	1,695	315	2,200	2,074	288	404	44	391	504	99	75	968	1,845	2,007	83.9	96.8	355	48	249	56
	6 mos.	571	14,619	3,345	19,712	18,419	2,496	2,245	267	3,268	2,913	587	465	6,764	13,998	13,342	71.0	73.5	5,714	1,549	2,647	2,288
Georgia Railroad*	June	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	6 mos.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Georgia & Florida	June	332	293	....	297	290	80	94	6	30	37	8	18	77	221	258	74.7	89.0	75	14	41	4
	6 mos.	332	1,588	....	1,616	1,757	444	540	24	182	239	47	107	461	1,286	1,553	79.6	88.4	330	84	117	—39
Grand Trunk Western	June	952	4,359	265	5,025	4,700	628	799	56	718	799	95	88	2,187	3,836	4,092	76.3	87.1	1,189	319	331	—115
	6 mos.	952	27,239	1,267	30,843	29,369	3,387	4,136	344	4,474	5,185	569	496	13,341	22,886	23,924	74.2	81.5	7,957	1,877	3,473	1,489
Can. Natl. Lines in New Engl.	June	172	190	10	220	225	63	99	11	12	24	....	3	105	197	261	89.4	116.1	23	24	—58	—114
	6 mos.	172	1,029	30	1,208	1,126	356	428	56	147	207	1	17	702	1,308	1,538	108.2	136.6	—100	145	—610	—891
Great Northern	June	8,283	22,208	1,197	25,353	24,255	5,314	4,982	313	3,116	3,539	715	458	7,292	17,051	16,938	67.3	69.8	8,302	4,460	3,546	3,728
	6 mos.	8,288	106,072	5,060	119,671	113,073	23,818	22,799	1,876	19,986	22,432	4,277	2,575	40,591	92,029	92,944	76.9	82.2	27,641	14,481	10,743	6,631
Green Bay & Western	June	224	366	....	374	363	78	116	4	39	41	8	23	104	260	305	69.6	84.2	114	57	32	5
	6 mos.	224	2,173	....	2,213	2,141	361	482	24	226	266	48	131	632	1,453	1,614	66.2	72.3	760	378	229	144
Gulf, Mobile & Ohio	June	2,757	5,779	345	6,571	6,401	998	1,023	74	1,334	1,288	283	265	2,047	4,987	4,985	75.9	77.9	1,584	627	639	634
	6 mos.	2,757	36,920	1,965	41,531	40,921	6,279	5,959	510	7,783	8,044	1,693	1,595	12,274	30,002	30,624	72.2	74.8	11,530	4,252	5,128	4,204
Illinois Central	June	6,531	19,172	1,931	23,632	22,047	3,961	3,716	401	4,162	3,927	792	545	8,155	17,529	17,534	74.2	79.5	6,103	3,186	2,333	1,790
	6 mos.	6,537	117,219	10,690	142,120	136,559	20,775	21,258	2,554	23,826	24,810	4,673	3,247	49,892	103,890	106,739	73.1	78.2	38,230	20,388	14,489	10,715
Illinois Terminal	June	355	863	40	1,015	896	147	135	25	162	138	41	45	366	784	761	77.2	85.0	231	102	83	54
	6 mos.	355	4,752	259	5,649	5,252	779	832	145	944	924	249	266	2,202	4,545	4,596	80.5	87.5	1,104	511	401	271
Kansas City Southern	June	891	3,330	117	3,753	3,348	360	287	40	493	378	91	84	1,081	2,141	1,903	57.1	56.8	1,612	749	666	640
	6 mos.	891	19,580	611	22,076	20,809	2,120	2,089	246	2,653	2,327	547	528	6,328	12,380	12,045	56.1	57.9	9,696	4,396	4,014	3,722
Kansas, Oklahoma & Gulf	June	327	420	....	421	421	59	62	7	27	28	11	28	102	237	253	56.2	60.0	184	82	72	83
	6 mos.	327	2,385	....	2,393	2,549	347	361	48	178	219	68	169	625	1,439	1,573	60.1	61.7	954	415	340	371
Lake Superior & Ishpeming	June	149	642	....	823	528	62	68	10	59	53	16	2	134	269	242	32.6	45.9	555	213	364	261
	6 mos.	149	1,450	....	1,835	1,296	308	358	58	378	380	98	13	455	1,226	1,208	66.8	93.2	610	377	342	17
Lehigh & Hudson River	June	96	281	....	282	262	39	44	2	28	28	8	15	82	176	183	62.3	69.9	106	46	36	25
	6 mos.	96	1,624	....	1,625	1,633	208	240	14	177	187	50	91	517	1,069	1,113	65.8	68.1	556	222	183	167
Lehigh & New England	June	178	759	....	767	500	80	79	21	184	134	40	19	207	527	454	68.8	90.9	240	164	130	61
	6 mos.	180	3,632	....	3,665	3,297	451	466	54	972	856	239	104	1,156	2,930	2,795	79.9	84.8	736	635	498	487
Lehigh Valley	June	1,154	5,476	262	6,026	5,732	779	914	101	1,022	872	210	141	2,412	4,589	4,539	76.1	79.2	1,437	431	920	664
	6 mos.	1,154	29,971	1,674	33,400	31,927	4,254	4,782	592	5,860	5,359	1,237	835	14,299	26,724	26,419	80.0	82.7	6,676	788	4,987	2,281
Long Island	June	360	1,225	3,724	5,209	4,844	687	765	87	964	916	127	25	2,385	4,219	4,274	81.0	88.2	990	311	367	—97
	6 mos.	360	6,614	21,592	29,721	26,421	3,983	4,107	517	5,684	5,587	749	119	14,654	25,520	25,234	85.9	95.5	4,201	1,842	580	—2,726

*Because of a strike, figures for the Georgia are not available.

(Table continued on page 15)

Lubrication Intervals for TELETYPE 28

60 wpm—3,000 hours operation or 1 year
75 wpm—2,400 hours operation or 9 mos.
100 wpm—1,500 hours operation or 6 mos.
(Based on 8-hour day operation)

Note how Model 28 is designed for operating convenience, noise suppression, and easy access for maintenance and for changing ribbons and paper.

Compare them with any other telegraph printer

As you can see, the lubrication interval for the new Teletype Page Printer is extended beyond anything before known in printing telegraphy. In fact, all elements of the new Teletype Printer have been designed with attention-free operation in mind.

There's the new featherweight carriage, featuring a 2-ounce Typebox, that replaces the conventional typebasket carriage weighing 10 times as much . . . and the all-steel clutch which eliminates the frequent lubrication required by the felt clutch in most other telegraph printers.

Motions are safer, loads are lighter, there's less friction, less heat.

The result is that this new Teletype Printer cuts maintenance to less than that normally required for equipment not having these new features.

If you would like complete information on this revolutionary new Teletype Printer, contact your telephone company or other communications company or write to our new customer service office: Teletype Corporation, Dept. RA8, 4100 Fullerton Ave., Chicago 39, Ill.

TELETYPE

TELETYPE CORPORATION
SUBSIDIARY OF
Western Electric Company
INCORPORATED

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF JUNE AND SIX MONTHS OF CALENDAR YEAR 1955

Name of Road		Average mileage operated during period	Operating Revenues				Operating Expenses										Operating ratio		Net from railway operation	Railway tax accruals	Net railway operating income	
							Maint. Way and Structures			Maint. Equipment												
			Freight	Pass.	Total 1955	(inc. misc.) 1954	Total 1955	Total 1954	Deprec. and Retirements	Total 1955	Total 1954	Deprec. and Retirements	Traffic	Transportation	Total 1955	Total 1954	1955	1954			1955	1954
Louisiana & Arkansas	June	753	2,173	55	2,335	2,071	248	249	21	261	252	88	71	612	1,274	1,251	54.6	60.4	1,061	465	496	408
	6 mos.	753	12,650	305	13,521	13,088	1,334	1,699	119	1,572	1,593	544	430	3,587	7,404	7,761	54.8	59.3	6,117	2,610	2,981	2,720
Louisville & Nashville	June	4,733	16,187	903	18,274	16,786	2,369	2,837	225	3,522	3,701	836	400	5,949	12,915	13,485	70.7	80.3	5,359	3,211	3,277	1,958
	6 mos.	4,733	66,352	3,329	74,901	99,636	10,786	17,271	1,443	17,060	22,723	5,006	2,134	26,717	60,644	82,040	81.0	82.3	14,257	8,569	11,919	11,683
Maine Central	June	944	1,792	125	2,065	1,998	453	492	27	354	395	77	20	708	1,631	1,696	79.0	84.9	434	228	179	122
	6 mos.	944	11,331	549	12,662	13,043	2,470	2,591	162	2,038	2,387	466	124	4,457	9,621	10,114	76.0	77.5	3,040	1,347	1,200	1,104
Midland Valley	June	334	221	....	224	181	42	39	5	12	9	4	5	55	124	117	55.5	64.8	100	52	33	58
	6 mos.	334	1,116	....	1,135	1,002	245	239	35	69	67	22	30	317	719	704	63.3	70.3	416	208	124	109
Minneapolis & St. Louis	June	1,397	1,623	3	1,696	1,777	271	304	30	288	278	76	97	564	1,338	1,363	78.9	76.7	358	219	153	173
	6 mos.	1,397	9,368	19	9,770	10,000	1,706	1,680	168	1,681	1,604	457	606	3,403	8,060	8,044	82.5	80.4	1,710	1,095	701	845
Minn., St. Paul & S. Ste. Marie	June	3,224	3,431	145	3,763	3,655	1,012	834	63	569	585	123	91	1,166	2,949	2,894	78.4	79.2	814	247	621	505
	6 mos.	3,224	16,394	413	17,754	17,239	4,109	4,049	345	3,569	3,793	728	502	6,774	15,755	16,279	88.7	94.4	1,998	1,293	854	—285
Mississippi Central	June	148	191	....	196	187	57	60	2	25	30	6	14	44	149	162	76.2	86.4	47	19	18	8
	6 mos.	148	1,199	....	1,226	1,197	317	376	14	160	165	35	86	296	923	992	75.3	82.9	303	115	121	79
Missouri-Illinois	June	172	486	....	489	427	62	86	8	79	85	31	11	111	276	305	56.4	71.3	213	101	131	61
	6 mos.	172	2,836	....	2,850	2,526	342	459	32	452	496	175	68	699	1,629	1,755	57.2	69.5	1,221	531	740	386
Missouri-Kansas-Texas Lines	June	3,241	5,512	278	6,317	6,381	858	898	97	919	977	242	252	2,391	4,722	4,891	74.8	76.7	1,594	553	645	931
	6 mos.	3,241	31,204	1,518	35,728	36,395	5,029	5,428	547	5,230	5,630	1,459	1,490	13,920	27,531	28,596	77.1	78.6	8,198	2,679	3,249	3,326
Missouri Pacific	June	6,917	16,238	787	18,804	17,649	3,315	3,050	332	3,533	3,165	813	483	6,798	14,818	13,998	78.8	79.3	3,986	1,114	2,176	1,921
	6 mos.	6,918	92,269	4,499	107,007	103,843	16,952	17,983	1,855	21,117	19,304	4,796	2,907	38,920	83,822	84,562	78.3	81.4	23,184	6,530	12,888	9,087
International-Great Northern	June	1,104	2,532	173	2,932	2,702	593	531	50	464	483	122	67	1,115	2,362	2,308	80.6	85.4	570	118	338	183
	6 mos.	1,104	14,399	841	16,590	15,963	3,240	3,036	245	2,914	2,827	733	381	6,433	13,696	13,593	82.6	85.2	2,894	703	1,623	1,301
Gulf Coast Lines	June	1,723	3,337	76	3,654	3,393	649	693	46	495	506	114	97	1,204	2,598	2,686	71.1	79.1	1,056	299	503	509
	6 mos.	1,723	19,417	470	21,200	20,987	3,963	4,144	276	2,951	3,094	685	575	6,897	15,277	15,675	72.0	74.6	5,923	1,068	3,407	2,849
Monongahela	June	177	461	....	464	462	58	62	18	55	78	14	1	158	298	293	64.2	63.4	166	27	44	28
	6 mos.	177	2,878	....	2,894	2,846	369	385	96	335	357	82	5	1,021	1,809	1,807	62.5	63.5	1,085	161	228	170
Montour	June	51	138	....	148	167	18	14	2	46	40	17	1	56	131	125	88.7	74.6	17	28	44	52
	6 mos.	51	730	....	790	919	87	94	15	264	319	100	6	316	729	809	92.2	88.0	62	104	200	294
Nashville, Chatt. & St. Louis	June	1,043	2,468	146	2,912	2,969	518	451	45	405	408	139	117	1,100	2,257	2,186	77.5	73.6	655	304	284	420
	6 mos.	1,043	10,408	481	12,336	18,390	2,177	2,980	272	2,265	2,465	832	679	5,112	10,909	13,606	88.4	74.0	1,427	531	614	2,340
New York Central	June	10,710	48,559	9,006	65,274	61,407	8,454	9,533	952	11,511	11,287	2,270	1,097	26,653	50,892	51,777	78.0	84.3	14,381	5,038	7,330	2,729
	6 mos.	10,710	276,798	49,173	368,078	355,647	42,480	50,899	5,986	61,829	72,437	13,566	6,511	159,611	290,428	313,400	78.9	88.1	77,650	29,892	35,210	2,967
Pittsburgh & Lake Erie	June	221	3,413	57	3,622	2,741	421	466	21	866	854	284	66	1,141	2,669	2,667	73.7	97.3	953	808	1,075	559
	6 mos.	221	18,801	378	20,185	17,203	2,412	2,520	220	4,875	5,782	1,711	427	6,667	15,649	16,681	77.5	97.0	4,536	3,902	6,315	4,104
New York, Chicago & St. Louis	June	2,178	13,405	144	14,080	12,441	1,580	1,404	143	2,106	1,983	362	329	4,736	9,192	8,654	65.3	69.6	4,888	2,407	2,072	1,539
	6 mos.	2,178	73,437	841	76,680	70,292	8,722	8,193	850	12,385	11,851	2,160	1,991	27,021	52,755	50,459	68.8	71.8	23,925	11,401	10,077	8,067
New York, New Haven & Hartford	June	1,769	8,247	4,174	13,883	13,032	1,660	1,666	277	2,021	1,862	447	278	6,057	10,736	9,964	77.3	76.5	3,147	763	1,391	1,271
	6 mos.	1,769	44,188	23,613	76,455	75,214	8,941	10,948	1,601	11,254	11,370	2,342	1,446	33,756	60,628	61,671	79.3	82.0	15,828	3,895	6,358	2,257
New York Connecting	June	21	343	....	373	328	123	131	25	15	20	....	....	87	229	238	61.4	72.5	144	82	52	2
	6 mos.	21	2,178	....	2,335	2,183	499	530	151	121	115	....	....	551	1,194	1,165	51.1	53.4	1,142	486	585	486
New York, Ontario & Western	June	541	472	....	490	548	119	134	35	89	84	22	25	250	513	529	104.7	96.4	—23	38	—147	—93
	6 mos.	541	2,757	....	2,814	3,028	652	726	136	529	539	135	147	1,498	3,008	3,118	106.9	103.0	—194	225	—880	—747
New York, Susquehanna & Western	June	120	453	43	518	511	49	47	6	56	62	13	9	207	356	369	68.7	72.3	162	55	47	53
	6 mos.	120	2,754	268	3,159	2,873	321	306	33	360	388	77	49	1,272	2,199	2,217	69.6	77.2	959	320	309	133
Norfolk & Western	June	2,126	15,894	395	17,061	15,095	2,144	2,165	317	3,663	2,891	682	320	4,704	11,413	10,357	66.9	68.6	5,648	3,668	3,070	2,401
	6 mos.	2,130	90,890	1,802	97,055	81,895	12,972	13,090	1,884	20,382	18,841	4,112	2,002	28,234	67,218	64,524	69.3	78.8	29,837	19,687	15,757	9,029
Norfolk Southern	June	604	843	....	855	855	195	192	13	127	133	29	46	251	668	701	78.1	82.0	187	76	71	44
	6 mos.	605	4,970	....	5,046	4,849	1,065	1,077	77	749	728	168	279	1,482	3,899	3,974	77.3	81.9	1,147	550	362	270
Northern Pacific	June	6,866	13,918	823	15,868	14,965	2,484	2,805	268	2,371	2,632	519	428	5,673	11,709	12,278	73.8	82.0	4,159	2,321	2,183	1,591
	6 mos.	6,866	75,151	3,535	84,785	78,607	11,942	13,987	1,604	15,504	16,957	3,114	2,234	34,335	68,562	71,253	80.9	90.6	16,223	9,925	8,208	2,061
Northwestern Pacific	June	329	1,409	6	1,443	1,246	397	280	20	126	95	4	6	382	926	761	64.2	61.1	517	215	147	132
	6 mos.	330	7,294	26	7,466	6,411	1,879	1,876	177	616	577	24	35	2,081	4,746	4,722	63.6	73.7	2,720	1,094	679	204
Oklahoma City-Ada-Atoka	June	132	94	....	95	82	13	23	2	3	2	....	2	18	40	54	41.5	65.1	56	21	20	6
	6 mos.	132	472	....	476	711	95	127	15	9	8	....	11	104	244	300	51.2	42.2	233	87	70	162
Pennsylvania	June	10,037	62,800	9,931	80,655	72,427	8,824	9,061	1,405	17,980	15,280	2,925	1,236	33,984	65,175	59,968	80.8	82.8	15,480	5,077	7,400	5,460
	6 mos.	10,037	341,686	60,442	446,780	423,788	47,935	51,683	8,336	92,586	92,649	17,546	7,327	195,935	363,793	362,452	81.4	85.5	82,988	29,343	37,986	17,074
Pennsylvania-Reading Seashore Lines	June	358	649	166	838	887	217	180	24	112	101	22	11	484	860	814	102.7	91.8	—23	63	—240	—193
	6 mos.	358	3,552	640	4,306	4,391	1,233	1,161	177	667	612	131	64	2,714	4,909	4,890	114.0	111.4	—603	372	—1,827	—2,065

(Table continued on page 16)

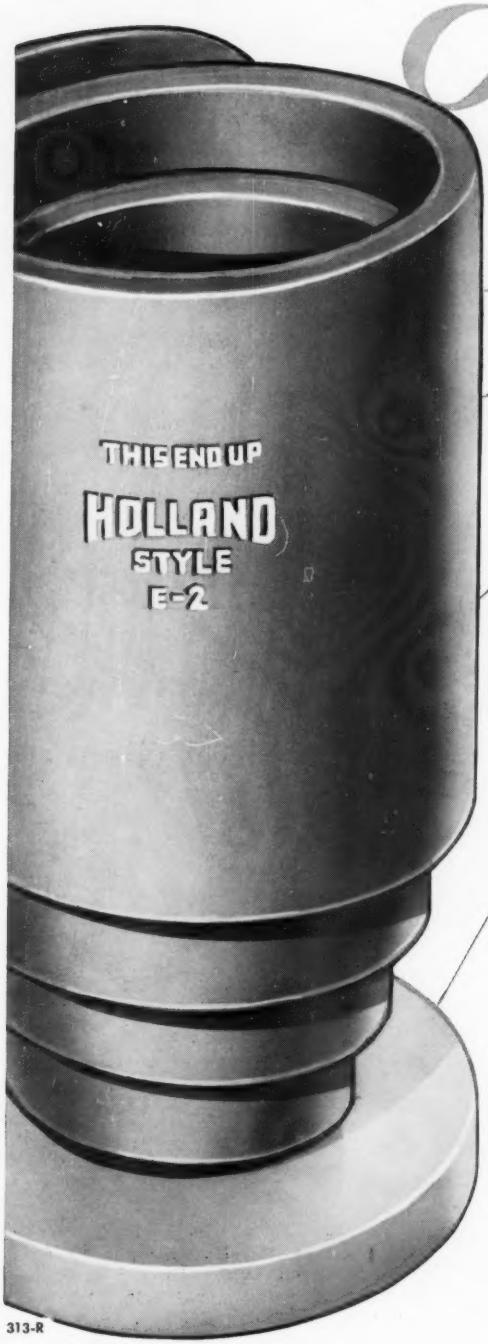
REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF JUNE AND SIX MONTHS OF CALENDAR YEAR 1955

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total 1955	Total (inc. misc.) 1954	Operating Expenses: Maint. Way and Structures: Total 1955	Total 1954	Deprec. and Retirements	Maint. Equipment: Total 1955	Total 1954	Deprec. and Retirements	Traffic	Transportation	Total 1955	Total 1954	Operating ratio 1955	Operating ratio 1954	Net from railway operation	Railway tax accruals	Net railway operating income 1955	Net railway operating income 1954
Pittsburg & Shawmut	June	97	155	....	157	151	22	46	4	18	39	12	5	37	92	141	58.6	93.1	65	4	106	34
	6 mos.	97	892	....	900	988	156	200	28	228	252	71	26	218	688	778	76.4	78.8	212	11	443	367
Pittsburgh & West Virginia	June	132	692	....	696	597	112	115	24	127	123	37	65	184	529	506	76.0	84.8	167	69	100	58
	6 mos.	132	3,978	....	4,000	3,618	627	575	143	727	731	217	368	1,039	3,005	2,898	75.1	80.1	995	404	598	516
Reading	June	1,304	8,679	546	9,809	8,563	1,401	1,100	202	1,917	1,696	418	162	3,688	7,583	6,910	77.3	80.7	2,226	963	1,166	1,107
	6 mos.	1,305	50,328	3,408	57,454	54,913	7,032	6,700	1,131	10,953	10,504	2,524	956	22,543	44,087	43,081	76.7	78.5	13,367	5,133	7,115	6,679
Richmond, Fredericksburg & Potomac	June	118	1,639	438	2,343	2,144	271	320	25	312	333	67	21	707	1,435	1,516	61.2	70.7	908	494	295	204
	6 mos.	118	9,160	2,888	13,833	13,739	1,736	1,824	149	1,965	2,022	399	133	4,445	9,082	9,298	65.7	67.7	4,751	2,410	1,466	1,611
Rutland	June	392	375	....	404	380	73	82	11	63	49	14	29	146	335	339	83.0	89.0	69	25	24	—10
	6 mos.	392	2,114	. .	2,307	2,259	455	451	63	322	351	80	157	872	1,955	2,062	84.7	91.3	352	147	68	—112
Sacramento Northern	June	265	183	. .	190	231	59	124	5	11	17	3	2	63	146	229	76.9	99.5	44	14	14	—42
	6 mos.	265	1,125	....	1,175	1,180	354	465	27	91	77	19	13	393	928	1,039	78.9	88.1	248	87	57	—71
St. Louis-San Francisco	June	4,610	9,199	406	10,344	9,959	1,582	1,595	185	1,743	1,640	527	389	3,725	8,004	7,958	77.4	79.9	2,340	1,195	1,202	927
	6 mos.	4,602	54,020	2,289	60,740	58,067	8,792	9,461	1,031	10,268	9,828	3,161	2,196	21,901	46,408	47,174	76.4	81.2	14,332	7,091	7,004	4,694
St. Louis, San Francisco & Texas	June	157	379	3	402	543	66	46	4	31	34	1	26	148	282	280	70.1	51.5	120	37	22	107
	6 mos.	157	2,291	23	2,446	2,350	314	260	20	192	199	7	157	942	1,671	1,604	68.3	68.2	775	279	191	198
St. Louis Southwestern Lines	June	1,561	5,607	17	5,792	5,081	602	692	79	556	596	108	181	1,695	3,200	3,257	55.2	64.1	2,593	1,287	1,032	783
	6 mos.	1,561	31,189	105	32,324	29,763	3,757	4,341	390	3,455	3,905	635	1,061	9,557	18,861	19,555	58.4	65.7	13,463	6,655	5,121	2,303
Seaboard Air Line	June	4,064	9,825	1,032	11,705	12,016	1,578	1,649	187	2,172	2,246	529	360	3,832	8,441	8,783	72.1	73.1	3,265	1,181	1,893	1,845
	6 mos.	4,064	66,600	6,412	79,258	79,228	12,313	12,351	1,139	14,025	13,857	3,263	2,193	25,137	56,779	57,086	71.6	72.1	22,479	8,158	12,314	11,817
Southern Railway	June	6,289	19,884	1,363	22,727	19,451	2,921	2,957	247	3,844	3,724	779	378	7,041	14,941	14,902	65.7	76.6	7,786	3,571	3,430	1,939
	6 mos.	6,289	121,373	7,451	138,866	121,922	16,875	17,620	1,459	22,900	22,996	4,588	2,411	41,300	89,118	88,594	64.2	72.7	49,748	22,740	22,428	15,440
Alabama Great Southern	June	326	1,429	69	1,590	1,447	223	197	31	307	305	58	41	493	1,155	1,062	72.6	73.4	435	197	166	165
	6 mos.	326	9,417	394	10,613	8,694	1,412	1,335	185	1,822	1,676	349	216	2,995	6,954	6,271	65.5	72.1	3,659	1,497	1,629	1,205
Cinn., New Orleans & Texas Pac.	June	337	3,594	181	3,958	3,573	589	494	55	670	553	136	91	978	2,444	2,165	61.7	60.6	1,514	712	646	625
	6 mos.	337	23,076	1,065	25,431	21,383	3,231	2,896	301	3,850	3,664	804	454	5,722	14,149	13,258	55.6	62.0	11,283	5,583	5,001	3,549
Georgia Southern & Florida	June	475	766	63	881	824	231	204	9	77	65	8	20	312	679	627	77.0	76.1	203	43	—71	2
	6 mos.	475	4,606	455	5,530	4,971	1,570	1,121	54	468	407	43	121	1,782	4,218	3,545	76.3	71.3	1,311	261	—220	151
New Orleans & Northeastern	June	204	1,138	46	1,258	1,053	172	545	19	132	149	42	26	224	608	1,106	48.3	105.0	650	402	239	—26
	6 mos.	204	5,893	290	6,582	6,022	1,000	1,303	113	831	835	254	129	1,346	3,650	3,979	55.5	66.1	2,931	1,775	1,112	779
Southern Pacific	June	8,127	45,270	3,119	51,503	47,014	6,137	5,308	471	10,214	9,487	1,985	926	19,265	38,129	35,499	74.0	75.5	13,374	5,530	5,830	4,537
	6 mos.	8,130	226,306	15,708	257,944	240,673	31,041	29,510	2,872	52,792	51,246	11,456	5,323	98,290	199,264	193,803	77.3	80.5	58,680	26,155	26,676	18,826
Texas & New Orleans	June	4,315	11,027	538	12,323	10,432	2,302	1,959	104	1,643	1,465	140	274	4,153	8,814	8,197	71.5	78.6	3,509	1,383	896	459
	6 mos.	4,315	60,739	2,673	67,459	63,648	11,616	11,122	831	8,826	9,017	865	1,618	22,949	48,341	48,956	71.7	76.9	19,117	7,732	4,984	3,364
Spokane International	June	150	301	....	316	279	54	53	2	19	24	10	6	77	168	169	53.2	60.6	148	53	64	65
	6 mos.	150	1,682	....	1,757	1,604	283	327	14	165	152	57	35	412	970	1,005	55.2	62.7	787	289	347	286
Spokane, Portland & Seattle	June	947	2,752	102	3,023	2,540	386	374	48	292	384	108	29	941	1,794	1,716	59.3	67.6	1,229	416	713	461
	6 mos.	944	14,247	446	15,589	13,933	2,270	2,114	288	2,287	2,224	651	180	5,174	10,532	9,942	67.6	71.4	5,057	1,912	2,685	2,334
Tennessee Central	June	286	369	5	388	337	71	79	5	55	59	20	15	129	296	300	76.3	89.0	92	26	20	—17
	6 mos.	286	2,513	9	2,585	2,199	438	455	32	371	351	120	90	832	1,882	1,772	72.8	80.6	703	156	213	80
Texas & Northern	June	8	161	....	162	57	5	3	....	10	10	3	1	8	28	24	17.6	42.8	133	1	111	17
	6 mos.	8	789	....	826	441	25	25	2	57	51	17	7	42	162	163	19.6	37.0	664	8	521	164
Texas & Pacific	June	1,831	5,595	369	6,465	6,331	1,020	1,056	93	997	1,111	251	185	2,231	4,773	4,897	73.8	77.3	1,692	578	795	787
	6 mos.	1,831	34,640	1,861	39,613	39,150	6,074	6,544	563	5,922	6,438	1,495	1,149	13,050	28,266	29,172	71.4	74.5	11,347	4,171	4,742	4,281
Texas Mexican	June	161	247	....	274	235	50	49	6	33	26	10	9	67	178	176	65.2	74.9	95	32	25	13
	6 mos.	161	1,468	....	1,582	1,432	283	310	33	175	167	59	57	395	1,020	1,021	64.5	71.3	562	234	168	110
Toledo, Peoria & Western	June	239	588	....	595	534	99	75	7	53	65	11	51	140	383	359	64.3	67.2	213	81	57	49
	6 mos.	239	3,414	....	3,460	3,561	489	586	41	339	341	68	275	826	2,192	2,218	63.3	62.3	1,268	524	381	430
Union Pacific	June	9,813	38,148	3,265	44,798	39,922	6,499	5,620	599	7,730	6,977	1,636	1,083	14,226	31,662	29,352	70.7	73.5	13,136	6,536	4,572	2,638
	6 mos.	9,813	206,807	13,975	238,338	225,486	33,566	28,428	3,186	44,496	43,029	9,736	6,593	80,479	177,151	172,340	74.3	76.4	61,188	33,150	19,159	12,000
Utah	June	99	58	....	58	57	14	13	1	20	36	8	1	25	68	83	116.2	146.2	—9	7	—15	—43
	6 mos.	99	562	....	564	421	83	91	8	178	257	48	4	190	501	572	88.9	136.0	63	46	28	—180
Virginian	June	611	3,158	1	3,300	3,138	432	455	53	651	641	206	48	683	1,914	1,908	58.0	60.8	1,386	855	875	704
	6 mos.	611	19,699	6	20,440	17,679	2,623	2,541	376	4,205	3,785	1,179	291	4,125	11,840	11,403	57.9	64.5	8,601	4,986	5,002	3,573
Wabash	June	2,393	8,508	425	9,747	8,671	1,259	1,272	172	1,351	1,268	363	319	3,892	7,237	7,060	74.2	81.4	2,511	848	1,017	533
	6 mos.	2,393	49,378	2,232	56,047	53,972	6,871	7,218	768	7,837	8,637	2,177	1,858	23,168	42,176	43,013	75.3	79.7	13,870	4,844	5,727	3,779
Ann Arbor	June	294	796	....	815	814	140	162	27	134	133	31	29	313	636	663	78.0	81.5	179	88	71	57
	6 mos.	294	4,463	....	4,518	4,329	570	567	64	799	798	183	170	1,945	3,603	3,611	79.7	83.4	915	383	377	265
Western Maryland	June	846	3,650	4	3,873	3,441	565	468	45	636	641	203	102	1,107	2,631	2,517	67.9	73.2	1,242	689	859	676
	6 mos.	847	21,000	20	22,385	21,022	3,264	2,949	312	3,712	3,936	1,219	599	6,745	15,639	15,390	69.9	73.2	6,747	3,514	4,522	3,878
Western Pacific	June	1,193	4,351	257	4,748	4,033	816	741	79	715	630	180	206	1,435	3,424	3,048	72.1	75.6	1,324	557	628	432
	6 mos.	1,193	23,778	1,129	25,480	23,183	4,731	4,320	484	3,847	3,826	1,054	1,181	7,824	19,101	18,303	75.0	79.0	6,379	2,552	3,317	2,330
Wisconsin Central	June	1,042	2,355	43	2,546	2,619	497	474	63	400	364	88	79	954	2,019	1,991	79.3	76.0	527	151	279	375
	6 mos.	1,042	13,610	193	14,656	14,222	2,277	2,128	25	2,269	2,475	518	440	5,698	11,353	11,498	77.5	80.8	3,303	893	1,610	1,189

HOLLAND *Long-Travel* unit snubber spring



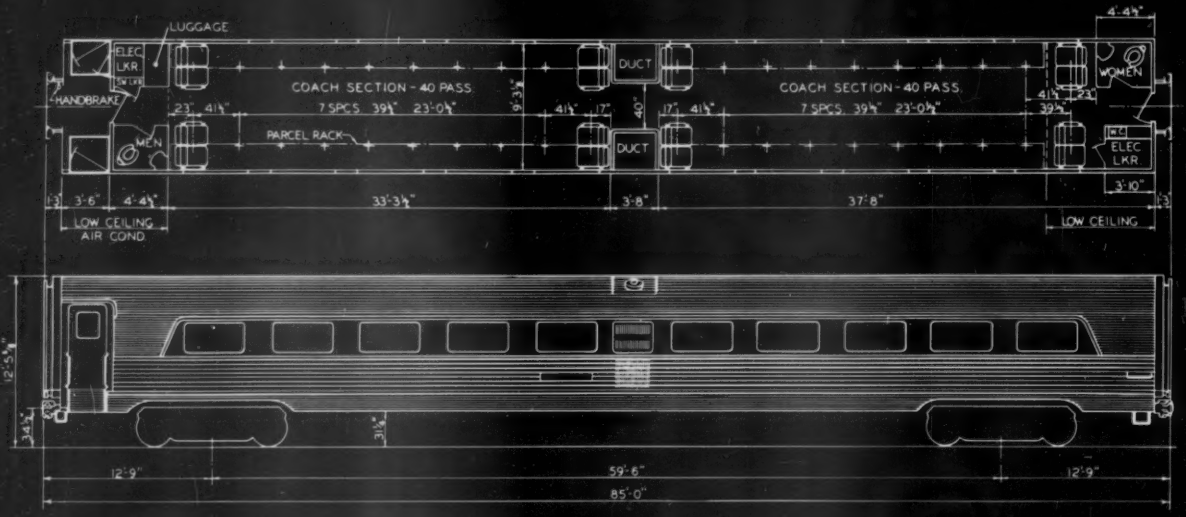
THE Holland STYLE *E-2 Volute Snubber Spring* has 2½" travel and gives ample protection to lading and car structures when used with A.A.R. 2½" *long-travel coil springs.*

The Holland STYLE *E-2 Volute Snubber Spring* is applied in old conventional A.A.R. or self-aligning trucks along with new coil springs (2½" travel) to improve riding quality as shown by tests conducted by A.A.R. during 1948-50.

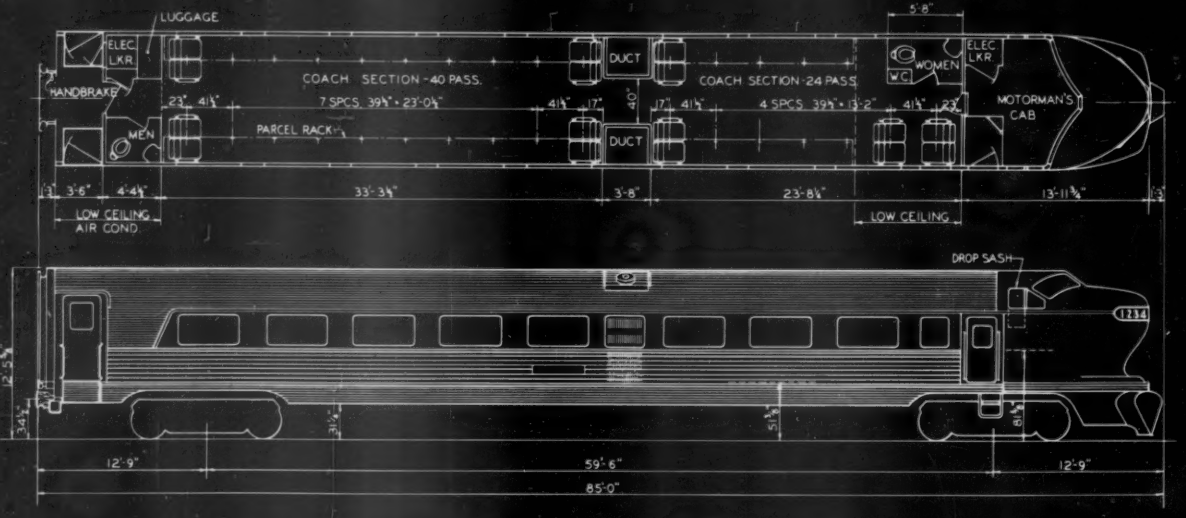
Write for Bulletin #15A describing in detail the Unit Snubber.

HOLLAND COMPANY

332 South Michigan Avenue • Chicago 4, Illinois



Plan and side-elevation of an intermediate car. Over-all height is 12 feet 5½ inches.



Plan and side-elevation of one of the two end cars. These cars, of standard 85 foot length, have a control and service cab. With one of these cars at each end there is no need for turn around.

NEW HAVEN

ORDERS UNIQUE SELF-PROPELLED TRAIN

One thing that makes it unique is that, while there never has been anything like it, back of it stand millions and millions of miles of proved performance.

Every car will have two 300-horsepower General Motors diesel engines, and will also be equipped with axle-mounted electric traction motors for use entering and leaving Grand Central.

The consist of the train is six cars, with a seating capacity of 448. Available top speed will be 110 miles an hour (governed). All cars will be equipped with Budd disc brakes. The train is capable of meeting the New Haven's accelerated schedule requirements between New York and Boston.

Each of the end cars will have a special engine cab from which the engineer can control all power plants.

This train again illustrates the versatility of design and construction Budd offers. It follows the order for HI-LEVEL coaches by the Santa Fe, and for the low level tubular train for the Pennsylvania. The Budd Company, Philadelphia.

Budd

chart your own WEATHER CONTROL

Streamlite HAIRINSUL

protects perishables under all conditions

- **LOW CONDUCTIVITY.** Thoroughly washed and sterilized, all-hair heat barrier. Rated conductivity —.25 btu per square foot, per hour, per degree F., per inch thick.
- **LIGHT WEIGHT.** Advanced processing methods reduce weight of STREAMLITE HAIRINSUL by 40%.
- **PERMANENT.** Does not disintegrate when wet, resists absorption. Will not shake down, is fire-resistant and odorless.
- **EASY TO INSTALL.** Blankets may be applied to car wall in one piece, from sill to plate and from one side door to the other. Self-supporting in wall sections between fasteners.
- **COMPLETE RANGE.** STREAMLITE HAIRINSUL is available ½" to 4" thick, up to 127" wide. Stitched on 5" or 10" centers between two layers of reinforced asphalt laminated paper. Other weights and facings are available.
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Provides maximum economy through LONG life expectance that's backed by LASTING design efficiency!

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buy *more* "mileage" in Federal than in any other system. That's because Federal equipment is produced under a *rigid policy of avoiding unnecessary obsolescence!*

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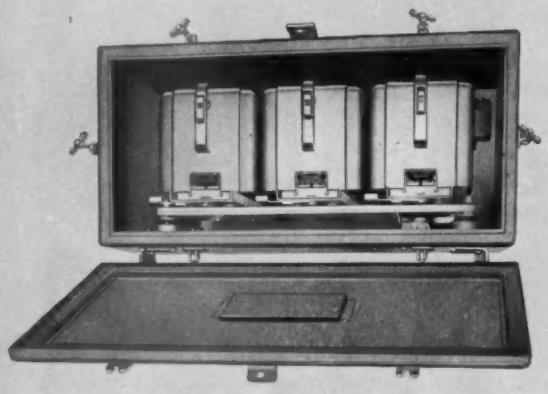

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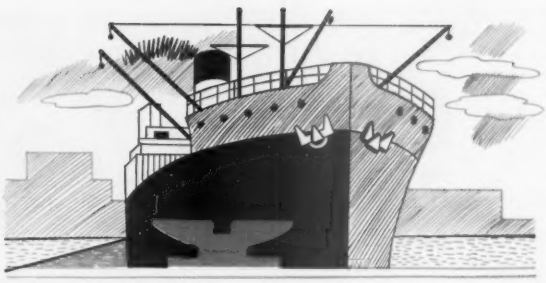
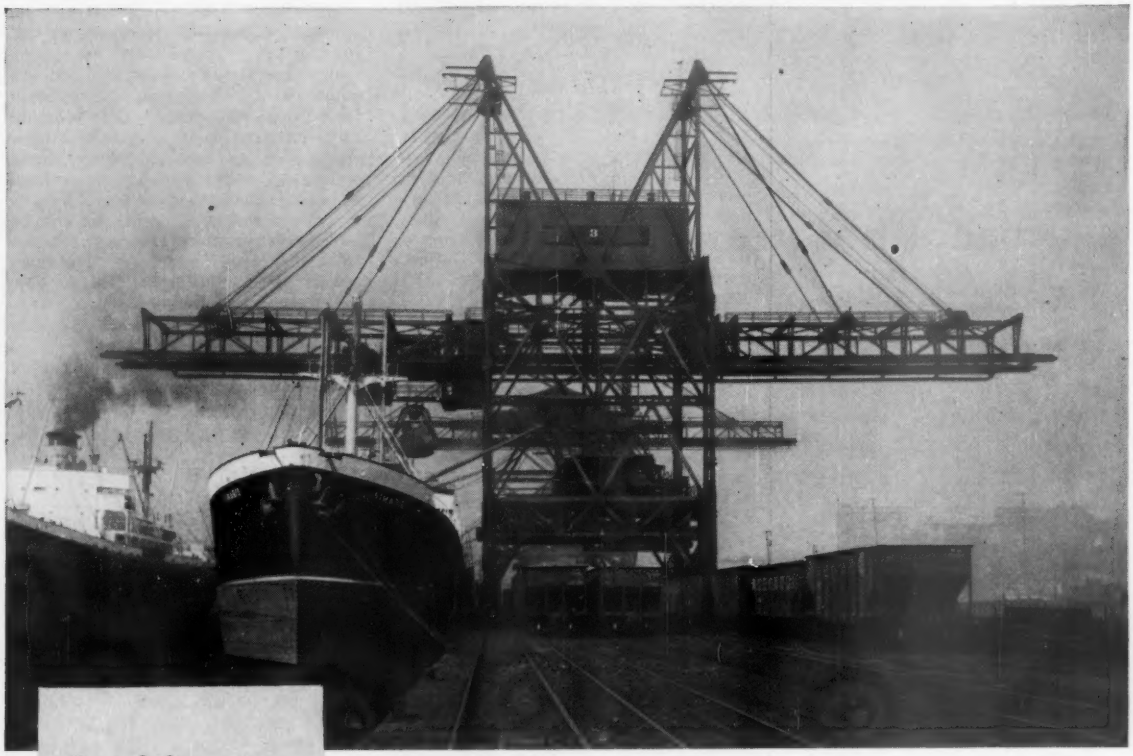
you can't show a profit while the cargo's in the boat





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Questions and Answers FOR THE TRANSPORTATION DEPARTMENT

Has the diesel locomotive helped in any way to increase car supply by bettering car utilization?

Yes—and no.

Interstate Commerce Commissioner J. Monroe Johnson is quoted in the affirmative on this question on page 9 of the March 21, 1955, issue of *Railway Age*. He said he had heard railroad men guess that the diesel has made freight cars "about 16%" more available.

Here are some other views:

"On the B&LE, train lengths have not changed materially—nor have train speeds increased greatly—since the advent of diesels. Our steam operation was very effective in moving large tonnages in minimum time. We feel that, while diesels are a long step forward for us in other ways, they have not of themselves improved our car utilization."—*R. D. Lake, staff assistant to president, Bessemer & Lake Erie.*

"In my opinion dieselization *has* improved freight car efficiency. Comparing our operations prior to complete dieselization with operations subsequent thereto, our results indicate an increase of 11% in the number of cars handled in each train. At the same time our average train speed shows an increase of 5%. Therefore, it seems to me that this has had the effect of expediting the cars, not only by handling an increased number in each train but by handling all of them in the train 5% faster. Our manifest schedules are substantially the same now as they were prior to dieselization. We have reduced the number of extra trains operated prior to dieselization to handle cars which now have been absorbed in our regular manifest trains since we become dieselized completely."—*G. D Hughey, vice-president—operation, Delaware & Hudson.*

"We have checked the figures on average turning time and average per diem days per foreign car on line, which are believed to be the most satisfactory indices for checking the effect of dieselization on car utilization on our line. Over a period of years these figures show an increase almost indentical to the increase in consignee and shipper detention which has resulted from the five-day week. Thus, dieselization does not appear to have caused any significant difference in the amount of time cars remain on our line under our direct control."—*P. R. Goulett, vice-president—operations, New York, New Haven & Hartford.*

"There are so many elements entering into car supply that it is extremely difficult to allocate any particular improved car performance to any one factor. In a search of our records, we have not been able definitely to establish a marked trend or attribute specifically to dieselization the improved car handling. It has been shown by our records that we are handling more cars per train and in fewer trains and in schedules that are more expedited.

"We also have found several instances, especially in operation of branch lines, where cars have been more expeditiously forwarded on account of our ability to supplement regularly assigned power with additional units on days when there was an accumulation of cars. Formerly, these would be accumulated over several days and an extra train run. This is no longer necessary, as a unit can be added to clean up such cars. Of course, this is only a minor number of cars compared to all cars handled on line, but we feel certain there are other similar instances where dieselization has assisted us to some extent."—*G. B. Matthews, vice-president and general manager, St. Louis Southwestern.*

"In 1944, with six diesels in operation, we worked 2,287 eight-hour steam and 4,055 eight-hour diesel assignments. We handled 243,442 cars in complete switching operations, an average of 38.4 cars per assignment. The AAR rule 5 reclaim check for the year 1944 developed an allowance of 3.27 days.

"In 1950, with 12 diesels, we worked 87 eight-hour steam and 6,943 eight-hour diesel assignments, handling 257,773 cars, an average of 36.6 cars per assignment. The AAR rule 5 check for the year reduced the reclaim allowance to 2.90 days.

"In 1944 all industry served by us worked at least six days per week, while many of our larger customers worked seven days. In 1950 no one worked more than six days. Further, our mileage increased from 128 in 1944 to 131 in 1950—main lines and industrial sidings.

"During 1954, with 14 diesels, we worked 79 eight-hour steam and 8,818 eight-hour diesel tricks, handling 316,301 cars, an average of 35.5 cars per assignment. The AAR rule 5 check for 1954 further reduced the reclaim allowance to 2.85 days. (In 1954 all industries worked only five days per week.) During this year cars were interchanged with the T&NO at West Bridge, wheras in prior years, including 1950 and 1944, this interchange was made in our Cotton Warehouse classification yard. The interchange at West Bridge increased our haul approximately 16 miles each time interchange was made. Also during 1954 our road extended its main line to the Lake Ponchartrain end of the west side of the Industrial Canal, increasing our mileage to 141, an increase of 10 miles over 1950 and 13 miles over 1944. Several large industries are lo-

CONDUCTED BY G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, *Railway Age*, 30 Church Street, New York 7.

cated on this extension, which can only be worked once daily between the hours of midnight and 5:00 a.m. on account of U.S. Highway 90 crossing.

"In our opinion the decrease in the per diem reclaim detention, alone, proves that dieselization on the Public Belt has had the effect of augmenting the supply of freight cars at New Orleans."—*A. M. France, car accountant, New Orleans Public Belt.*

"I do not think anyone will question the fact that in overall railroad operation the use of diesels has increased efficiency from the standpoint of conducting the operation in a more economical manner.

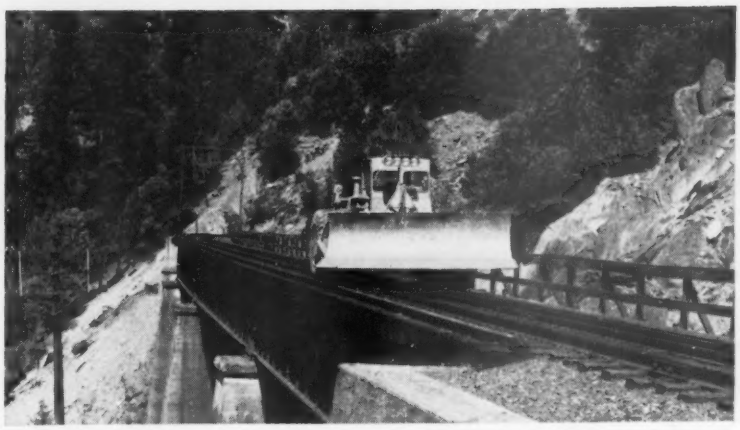
It does not necessarily follow from this that the diesel has improved car utilization and thus augmented the freight car supply. As I said before, the diesel results in trains handling more cars per train at faster speeds over the road, but to some extent, at least, I think the terminal delay is increased in order to build up the longer trains.

"Your correspondent from the New Orleans Public Belt makes a case for improved car utilization by the use of diesels. However, I'm not sure their figures prove their point. The Belt decreased the average detention per car from 3.27 days in 1944 to 2.85 days in 1954. In this 10-year period, the number of cars handled increased from 243,442 to 316,301, or 30%. It seems to me the increased volume itself would aid in securing a faster turn of cars.

"Beyond this, however, I notice that the number of eight-hour engine assignments operated increased from 6,342 in 1944 to 8,897 in 1954, or 40%. Since the number of eight-hour engine assignments increased, percentagewise, 33 1/3% more than the number of cars handled, this would seem to account for the reduced detention. Also, presumably, particularly on a switching line, *this* would occur whether the increase in engine assignments had been diesels or steam engines. Further, you will observe that in 1944 there were 38.4 cars handled per engine assignment, as compared with 35.5 in 1954.

"The only other railroad covered by your inquiry which feels that dieselization has improved car utilization is the Delaware & Hudson, but in their case the statistics given relate only to over-the-road movement—the increase in number of cars handled per train and the increase in average train speed. Statistics as to average detention of cars on the D&H would be more indicative of overall improvement in freight car efficiency. In this case, since the D&H handles so much overhead traffic, I am not sure that a reduction in overall detention on that line since dieselization would be indicative of the situation on railroads generally.

"To sum it up, I have yet to see any proof that the dieselization program has improved car utilization."—*A. H. Gass, chairman, Car Service Division, Association of American Railroads.*



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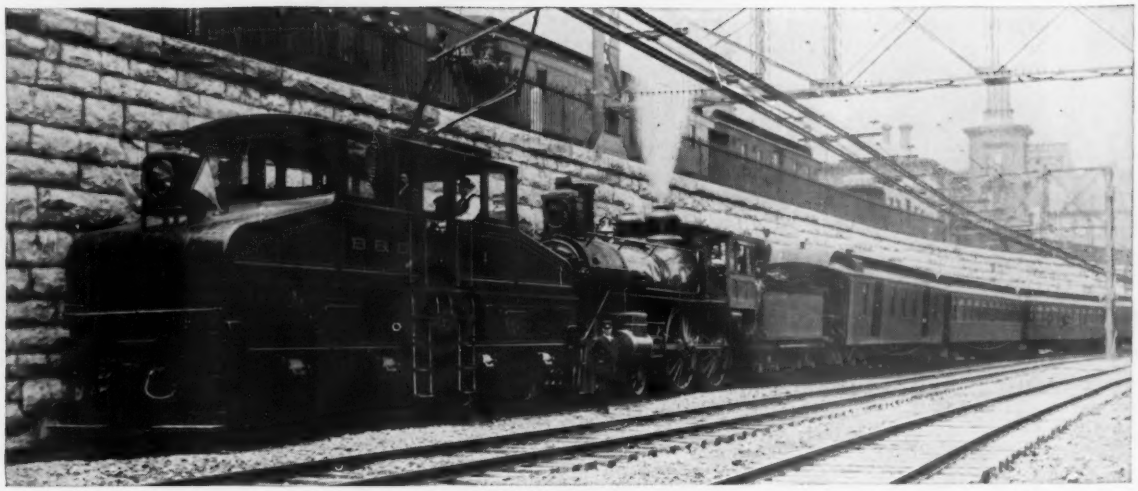
New rectifier locomotives operate on either A-C or D-C. When in the A-C zone, power is collected by pantograph on the roof, supplied to main transformer, then to rectifier tubes, which power six standard diesel-electric-type traction motors.
GENERAL ELECTRIC



1895: The world's first mainline electric locomotive was delivered to the Baltimore & Ohio Railroad.

How New General Electric Rectifier Locomotives Help the New Haven Keep Fast Schedules

Sixty years ago, in August, 1895, General Electric put the first mainline electric locomotive in service on the Baltimore & Ohio R.R. Since that time, America has seen continued progress in railroad electrification. Today, this progress is exemplified by a new type of motive power—G.E.'s rectifier-electric locomotive—now operating on the New Haven Railroad.

Running between New York City and New Haven, these new locomotives are speeding the schedules of such crack trains as the MERCHANTS LIMITED and the SENATOR. With the ability to develop up to 8000 hp at the rails, they are capable of both high speed and high acceleration required by this service.

As designed by G-E engineers, electrical equipment in the locomotive converts A-C from the overhead wire into D-C that drives six standard diesel-electric-type traction motors. Rectifier tubes, similar to those in a radio set, form the heart of the conversion system. In combination with power transformers, they take the 11,000-volt A-C from the overhead line and change it to low-voltage D-C. As the run gets closer to New York City, the new locomotive is also capable of taking D-C from the third-rail system, providing additional flexibility.

For more information about this important new development in electric railroading, write Section 123-5A, General Electric Co., Locomotive & Car Equipment Dept., Erie, Pa.

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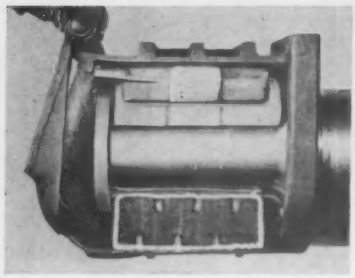


Journal Lubricating Pad

The Redipak is a block of specially processed neoprene enclosed by heavy cotton wicking material. The capillary action of the open cells in the neoprene and the pumping action produced by a series of holes molded in the top and bottom of the block provide oil feed. Additional oil is brought to the journal surface by the wicking action of the cotton cover, which is also claimed to filter out foreign material.

The Redipak is installed by hand and without tools. The top and bottom are identical and the pad is square so that, according to the manufacturer, it cannot be applied improperly. Ring-shaped grommets at the corners simplify removal because a hook can be used to pull the device from under the journal collar. Laboratory tests are said to prove that this device will operate at higher temperatures and have longer life than waste or felt pads. Life is estimated at about 50,000 miles or three years of service.

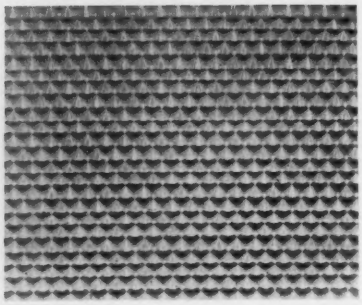
Test installations of this device have been in passenger service since 1954. The AAR has given approval for installation of 8,000 of these pads in limited interchange service. This device is made in five sizes for the standard journals from 4¼ by 8-in. to 6½ by 12-in. *National Bearing Division, American Brake Shoe Company, St. Louis 10* •

Faucet Water Heater

The Thermjet attachment is applied to standard faucets up to 15/16-in. size without tools and is readily transferred from one faucet to another. It is said to produce hot water from the coldest supply within two seconds. The long water path, made of a series of winding constricted channels, has an electrical resistance of over 500,000 ohms and permits a current flow of only 1/5 milliamperes. The position of the faucet handle determines the water temperature. With the handle just opened, the water is steaming hot. Water temperature decreases as the faucet is opened. When the faucet is completely closed, there is no current flow, though the unit is still plugged in. The Thermojet weighs 3 lb and measures 3 by 4½-in. *Greatex Products, Inc., 890 Sixth ave., New York 1* •

Spray Paint Heater

For hot spray painting, the Circaflo 300 is said to provide uniform viscosity paint and a controlled application temperature. Longer life and better coverage are claimed for standard industrial finishes when used with this new hot-spray heater. The unit has a coil-less heat exchanger and the Circaflo pump. This pump has no bearings or close tolerances to wear, and is equipped with a ¼-hp explosion-proof electric motor. Two coats of finish can be replaced with a single, time-saving, sag-proof application of heat-reduced, high-solids paint. *Speed-Flo Corporation, 720 Polk ave., Houston 2, Texas* •



Decorative Metals

The decorative effects produced by Rigid-Tex metals make a trim material that will conceal fingerprints, scratches and smudges. Rigid-Tex also diffuses the light striking it and is said to eliminate glare and surface distortion. The application of the patterns serves to increase the rigidity of panels and can result in weight reduction through the use of thinner sheets. There are over 40 standard patterns produced on stainless steel, aluminum, carbon steel, brass, copper and other metals. *Rigidized Metals Corporation, 666 Ohio st., Buffalo 3, N.Y.* •

Reflecto-Kit

Users of outdoor signs can now get increased life and increased visibility from them by use of a "Reflecto-Kit" which furnishes materials and instructions for coating signs with a tough plastic binder into which is sprayed a coat of glittering glass spheres. Available in three sizes and in white, yellow or 12 assorted colors, the kit requires no special skills to apply and is said to save up to 75% on normal reflectorizing costs. One application lasts five to seven years and is completely antipeeling. *Prismo Safety Corporation, Huntingdon, Pa.* •

Corrosion-Protective Coating

Thick-Coat, a resin coating with over 60 percent solids, is claimed to place a long-lasting corrosion-resistant covering over all surfaces. Used as it comes from the can, it can be applied with a brush, or with a roller or spray. Over one coat of Pennsalt Lock-Prime primer, two coats of Thick-Coat build up to a minimum of 6 mils dry-film thickness. It is regularly produced in white, green, black and slate and silver gray, and can be made in special colors. *Pennsylvania Salt Manufacturing Company, 1000 Widener Building, Philadelphia 7* •

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Within hours, the GATX stainless steel cars were at the plant, the acid was transferred to the cars and the storage tank repaired with a minimum of loss.

Unusual? Of course . . . but unusual service is one of the many benefits offered to lessees of GATX tank cars. There are over 48,000 cars in the GATX fleet . . . over 200 different types . . . available for your use without capital investment. To keep this fleet rolling, General American maintains a nation-wide network of district offices and shops that provide service on a 24-hour basis. That's why, when it comes to dependability, *it pays to plan with General American.*

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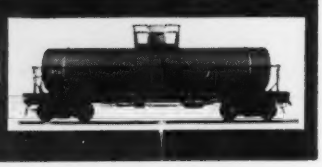


What's Wrong About "Selective Rate-Cutting?"

There are some accusations leveled at the railroads by truckers which, in our opinion, the railroads should not only freely admit but proudly proclaim. One of these accusations is that the railroads are looking for a "hunting license." As suggested in this space in our July 18 issue, this accusation is accurate. No stigma attaches to it, but quite the contrary. The private carriers (and, to almost the same degree, the contract carriers) have a practically unrestricted "hunting license" in their search for traffic. This is the way of free competition—and it is both sound and desirable in the public interest that the common carriers (including the railroads) get the same kind of "hunting license" in bidding for competitive traffic that the private and contract carriers have.

Nobody knows or can know—unless the common carriers are given freedom to compete—whether all the traffic that private and contract carriers are now hauling is going to them for reasons of better service and greater economy, or because regulatory barbed wire is keeping the common carriers away from it. An awful howl would go up from the public—and should go up—if one of the big automobile manufacturers had minimum prices set for him by the government, while all the other manufacturers were permitted to undercut this company's minimum prices as they saw fit. Yet that is exactly the kind of arbitrary discrimination that is being practiced against the common carriers.

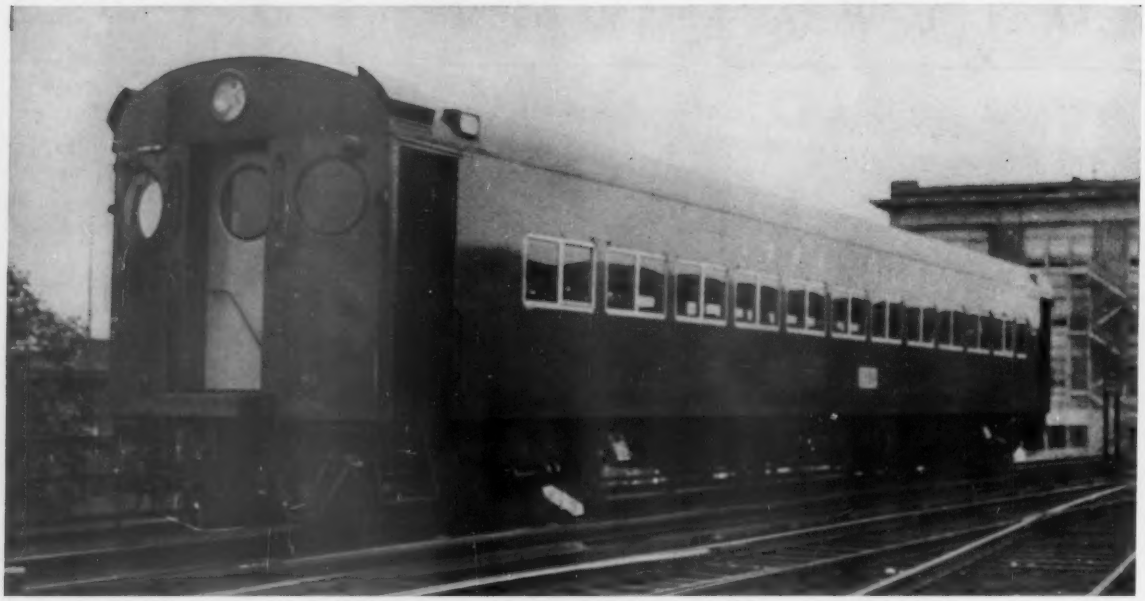
Still another truthful accusation being made against the railroads is that they are practicing, or seek to practice, "selective rate-cutting." That, also, is not a fault but a virtue—in a regime of competition. Selective rate-cutting is the method by which truckers originally got into the long-haul freight business. They looked at the railroad rate structure—constructed under conditions of monopoly (and justifiable, incidentally, under monopoly conditions, but only under those conditions). What they saw was a lot of high-valued traffic being charged fancy rates—because this traffic could "bear" such rates—and a lot of low-valued traffic that was being hauled for little more than direct costs. So what did the truckers do? Did they offer to take over all the railroads' traffic at, say, 5 or 10 per cent less than the railroads were charging? Of course, they did no such thing. They went out exclusively for the high-valued, high-rated traffic—and that is the traffic they are going after today.

No competitor ever has tried, or ever should try, to compete by reducing all his prices a uniform percentage under those of his rival. Such uniform reductions would be economically unsound, because no two competitors have exactly the same costs on all the business they do. It is not only fair, but highly desirable from the standpoint of public interest, that Competitor A should reduce his prices under those of Competitor B only on those items that Competitor A believes he can profitably handle more economically than B can do it. On the items where B seems to have a cost advantage, A should let him have the business.

That the railroads are looking for a "hunting license" and that they are seeking to practice "selective rate-cutting," then, are two accusations that the railroads should accept. Both practices are commendable, not reprehensible. If railroads were *not* looking for a "hunting license" or were *not* seeking to practice "selective rate-cutting," *then* they ought to be called in on the carpet—and, at the very least, be turned over to experts for an examination into their mental competence.

There is still another aspect of "selective rate-cutting" that needs more exploring than it has yet received—and that is the traffic-building opportunities this practice offers, quite apart from its competitive aspects. In a paper presented in June at a meeting of the Operations Research Society, J. A. Bliss—a rate analyst whose experience covers the utilities field as well as transportation—drew attention to the much greater growth that the electric utilities have enjoyed than has occurred in transportation.

The utilities used to have a good deal of the same "value of service" approach to rates as the railroads—but the utilities largely abandoned it. Instead, they went in for "selective rate-cutting"—offering rates, that is, that would be progressively reduced as the customer increased his patronage or improved his "load factor." They didn't worry much about working out rate bargains for the customer whose patronage was stagnant or declining. The course the utilities have followed has been highly beneficial to themselves and their customers alike. Is there any reason for supposing that such "selective rate-cutting" would be any less productive of equally desirable results in transportation?



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New LI Cars All Air Conditioned

Locomotive-hauled coaches as well as m-u cars and trailers are included in the improvement program

The Long Island is now offering its patrons luxury transportation in the form of air-conditioned commuter trains. The road is obtaining a total of 220 new passenger cars (May 30 *Railway Age*). These will include 140 multiple-unit cars and trailers and 80 locomotive-hauled coaches. The first of the coaches went into revenue service May 24 and the first m-u cars were delivered July 12. Delivery of all 220 cars will be completed by April 1956. The new equipment, built by the Pullman-Standard Car Manufacturing Company at Worcester, Mass., was ordered to replace obsolete cars and to meet the needs of increased traffic.

Existing cars retained in service are being equipped with greatly improved ventilation by circulating fans and new lighting which will produce illumination values of 25 footcandles on the 45 deg reading plane, 30 in. from the floor. Illumination values in all of the new cars will also be 25 footcandles.

The new cars consist of 22 head-end motor cars, 74 motor cars without cab control equipment, 44 m-u trailers and 80 locomotive-hauled coaches. All are essentially identical as to equipment and decoration. Head-end m-u and non-m-u coaches have a toilet at one end, and a seating capacity of 120. Other cars seat 123. All accessories such as seats, baggage racks, lighting fixtures and window curtains are identical and interchangeable regardless of manufacturer.

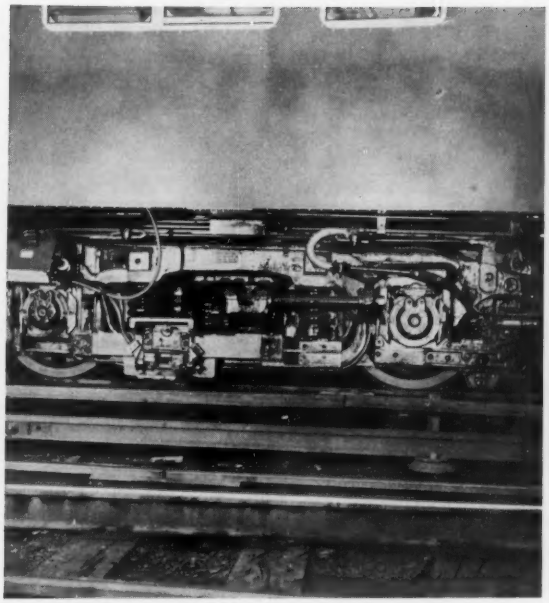
The car structure is a welded girder type design with plain painted sides, ends and roof. There are vestibules at each end and there are four sliding side doors and two sliding body end doors, except that the cab cars have a swing type vestibule end door. For operation at high- and low-station platforms, there are four trap doors.

Glass fiber insulation, three inches thick, is used for insulating roof, sides and ends. Side windows are of the fixed unit frame assembly type of extruded aluminum with curtain guides.

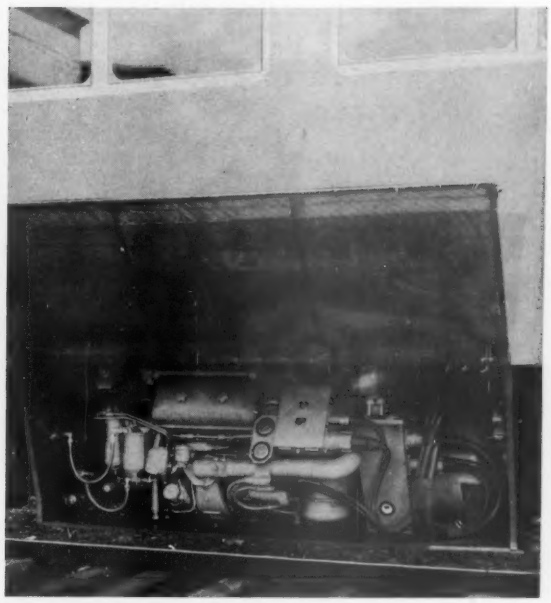
Floors are of composition material covered with 9 in. by 9 in. gray and marbleized black rubber tiles laid in checkerboard patterns. Seats are of the two- and three-passenger design and are reversible walkover type with stainless steel trim and plastic arm rests. Upholstery is green vinyl covered plastic. Cushions and backs are hair and spring type, the cushions having foam rubber topping for added comfort. The side interior finish of the cars is stainless steel. Trim includes cadet blue enamel with Navajo red stripe, with ceilings in white. The outside of the cars is L I standard dark gray with light gray letters and red numbers. Roofs are green.

For m-u cars with cabs and motorized trailers, the trucks are of the cast steel, four-wheel, single equalizer, bar type, with helical equalizer springs and combination elliptic and helical bolster springs. They have an 8-ft wheel base, and 6-in. by 11-in. journals for roller bearings.

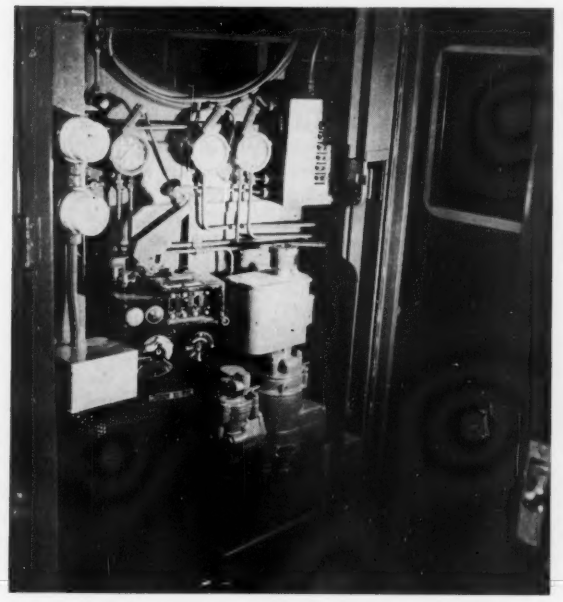
The 100-hp, self-ventilated traction motors are transom-hung with one motor geared to each axle with single reduction gearing and flexible couplings. All trucks without motors have an 8-ft 6-in. wheel base, and 5½ in. by 10 in. roller journal bearings.



MOTOR TRUCK on powered m-u car has 8-ft wheel base. Equipped with two 100-hp traction motors, these trucks roll on 6 by 11-in. roller bearing journals.



COACHES hauled by locomotives all have General Motors under-car a-c diesel power plants. Electrically driven air conditioning compressors are located under the floor also.



CAB CONTROL equipment in one of 22 head-end motor cars. Cab is fitted with electric heater and defroster. There are 74 motorized m-u cars without engineman's control.

WATER COOLER and toilet are installed on head-end m-u cars and locomotive-hauled coaches. Other conveniences include parcel racks and well-distributed illumination.

Brakes are designed in accordance with the Westinghouse Air Brake Company's schedule D-22-P for passenger car brake equipment, with D-22-AR control valve.

Cab cars only are equipped with Union Switch Signal three-indication, Type EL, two-speed, automatic speed control system.

Electrical equipment for car propulsion is supplied by the General Electric Company and the Westinghouse Electric Corporation. The four traction motors on each motor car receive power at 600 volts (nominal) from the third rail. Two motors are connected permanently in series and, with 300 volts on each motor, and with a train of normal consist, an acceleration of 1.00 mph per second is obtained. Cars will also operate in combination, having as few as 60 per cent motor cars with trailer cars. Motors must operate on voltages which may vary from 725 to 400.

Motors have one stage of field shunting and the controller has 11 contact units for cutting out accelerating resistance. An acceleration relay limits to a predeter-

FIFTY YEARS OF PROGRESS in Long Island suburban service is demonstrated by these contrasting pictures—each taken with light normally available in the two different types of cars. At the left is one of the railroad's oldest coaches, now retired to make way for one of its new air-conditioned cars of the type shown at the right. Both pictures were taken July 21, when the LI re-enacted its first scheduled electric-powered passenger run. Passengers and train-crew members who made the original trip, July 26, 1905, were guests of Thomas M. Goodfellow (extreme left, both pictures), LI vice-president and general manager, on the re-enactment run and also at a special luncheon.

LONG ISLAND MAKES GREAT STRIDES IN FIRST FULL YEAR OF "REDEVELOPMENT"

"Rehabilitation" of the Long Island is running far ahead of schedule.

Progress to August 12—which marked the end of its first full year of operation as a "Railroad Redevelopment Corporation" under a new New York state law has far exceeded expectations. In that 12-month period, the LI has:

Ordered **222 new air-conditioned passenger cars—220 of which are described in the accompanying pages—at a total cost of $24,400,000. This is 38 more new cars than were contemplated by the original redevelopment program.**

Placed in service **49 of the new cars—25 locomotive-hauled coaches, 22 m-u cars, and two RDC's—with six more being received every week.**

Arranged for delivery **of all 222 cars by April 1956, instead of by the end of next year, as originally scheduled.**

Completely rebuilt **106 of the 696 older cars earmarked for modernization, at a total cost of $21,500,000. Additional cars are being rebuilt at the scheduled rate of 10 a month.**

Ordered, **for delivery next month, instead of "four or five years from now" as originally contemplated, 10 new 1,600-hp diesel locomotives, which will complete dieselization of all non-electrified portions of the railroad.**

Added 60 new trains, **so scheduled as to make mid-day travel more convenient and attractive to passengers.**

Launched **an intensive campaign to make the railroad cleaner and more attractive. All cars are now scheduled for "stem-to-stern" cleaning twice a year, with daily cleaning procedures expanded and improved. Fifty-six stations have been painted, with many others programmed for early attention.**

Improved passenger facilities **at a number of stations by lengthening and paving platforms and erecting new shelters.**

Rehabilitated **many shop facilities to assure faster, more efficient maintenance of rolling stock.**

Earned **(in the nine months between September 1, 1954, and May 31, 1955) a net income of $731,710, compared with a net deficit of $4,947,840 in the comparable nine-month period of 1953-54. By terms of the law under which it now operates the net income which the LI now seems certain to earn for the 12 months ending next August 31—its first profitable year in the past 10—must be used solely for property improvement. No interest or dividends can be paid for 12 years, beginning 1954.**

Created **—largely because of these concrete accomplishments—improved morale among employees, and a friendlier attitude on the part of the public.**

mined value the rate at which the motors can accelerate.

Power for motor-car control circuits and vestibule and emergency lights is obtained from a 600/40-volt m-g set and a 16-cell, 300-amp-hr lead-acid battery.

Lighting and Air Conditioning

General interior illumination is produced by continuous ceiling-type fixtures, each unit being equipped with two 40-watt, 115-volt fluorescent lamps. Power for their operation is obtained from motor-alternator sets. Vestibule, emergency, and marker lights are incandescent.

Headlights consist of twin, sealed-beam lamps operating from the battery charging voltage, with a resistance in series with the lamp.

All cars are air conditioned by a Frigidaire 8-ton system.

It includes a motor-driven, 4-cylinder freon compressor, an air-cooled condenser unit having a total surface of 960 sq ft, with receiver, fan and motor unit, and a split evaporator with a surface of 560 sq. ft. The evaporator blower motor is rated 1.5 hp and delivers 2,400 cfm of air.

Cooled air is distributed by a Safety Car Heating &

Lighting ceiling-mounted air distributor and is delivered through a center ceiling duct.

Refrigerant compressors on m-u motor cars and trailers employ 600 volt d-c motors, while those on the locomotive-hauled trailers are 3-phase, 60-cycle, a-c motors.

There is a recirculating grill in the lowered ceiling near the evaporator. A 1,000 cfm, motor-driven, exhaust blower is placed at the opposite end.

Frigidaire undercar power plants supply electric power to the locomotive-hauled coaches. These units consist of a 3-cylinder, 2-cycle diesel-engine driving a 25-kw, 220-volt, 60-cycle, 3-phase, 1,200-rpm alternator and a 38-volt, 50-amp, d-c-battery charging generator.

The m-u cars and m-u-car trailers are electrically heated by 30 kw of floor heat and 22 kw of overhead heat.

The equipment, supplied by the Railway Utility Company, consists of heating units mounted along the side wainscot, and in the air-circulating system. There is also a cab heater, a windshield defroster and additional heat in the toilets. Controls provide for holding inside temperatures at 71, 73 or 75 deg F. Heating and cooling controls are interlocked so they cannot be operated simultaneously.

Locomotive-hauled coaches are heated by the Vapor Heating Corporation's Unizone steam heating system.

New Station for Only $11,000

Use of all-frame construction and inexpensive materials, plus elimination of "frills," permits Northern Pacific and Great Northern to build low-cost, serviceable and attractive structure at Davenport, N. D.

Why doesn't the railroad do something about this dilapidated depot? It's a disgrace!"

How often are remarks like this made by patrons in referring to antiquated, run-down depots in small towns across the country. The stock answer to such a question usually goes something like this: "Well, the railroad just can't afford to pour a lot of money into a new building here; there just isn't enough business to warrant such an expenditure."

True as this may be, it certainly is not an answer that satisfies local townspeople and patrons. The only answer satisfactory to them is to replace the antiquated structure with a reasonably attractive building. Here's where low-cost construction comes into the picture. With the materials available today, various railroads are discovering that attractive buildings can be put up for only a fraction of the cost of the more elaborate construction which has been more or less standard practice for station building in the past.

Here's a Good Example

An example of this approach to the station problem is found at Davenport, N.D., where the Northern Pacific and Great Northern have built a new jointly owned combination freight-passenger station which cost less than $11,000, including the platforms.

The new depot serves both roads at the crossing of their lines in Davenport. The building, of all-frame construction with a shed-type roof, is 16 ft by 44 ft in basic plan. At the track-crossing corner of the building a protruding bay window area is provided. The station includes an operator's office, a waiting room and a freight room. It replaces an old two-story 24-ft by 60-ft frame depot at the same point.

The building foundation is of concrete blocks placed on a concrete footing. The area enclosed by the foundation was leveled and filled with pit-run gravel. Over the gravel fill a 5-in. concrete floor was poured. In the office and waiting room the concrete floor is painted with two coats of gray floor enamel. In the freight room the floor is coated with Lapidolith liquid floor hardener.

Low-Cost Materials Used

The frame walls have studding placed on 16-in. centers. The building is sided with asbestos-cement shingles. The inside walls in the office and waiting rooms as well as the ceilings, are covered with ½-in. gypsum board, taped at the joints and painted. The walls and ceilings are fully insulated with balsam wool. The roof has a 1-ft overhang all the way around and is covered with Johns-Manville 3-ply built-up roofing, using cold application cement between layers of asbestos felt.

Heating of the office and waiting-room areas is by a circulating oil heater in the office. Heat enters the waiting room through a grill in the partition adjacent to the heater. The chimney is brick.

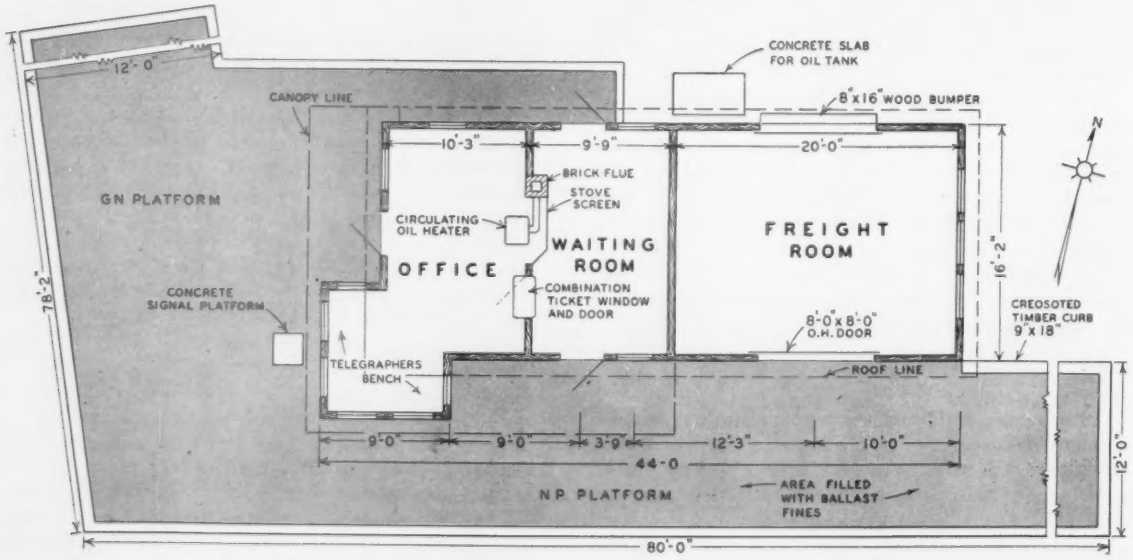
Double-hung window sash and wood doors are used throughout. In the freight room an 8-ft by 8-ft Wilson wood overhead door is provided on both the track side and the truck tail-gate side of the room. Both storm windows and screens are provided for entrance doors and windows in the office and waiting room. A rack has been built in one corner of the freight room, near the ceiling, for storage of the "storms" and screens when not in use. The entrance door leading into the office from the GN side and the entrance to the waiting room from the NP side are protected by canopies.

Along both track sides of the station there are loading and unloading platforms approximately 80-ft long. The platforms are 12-ft wide and consist in each case of a 6-in. layer of ballast fines enclosed on all sides by 9-in. by 18-in. creosoted timber curbs. Alongside the depot the platforms are sloped away from the building on a gradient of 1.4 in. per ft. Elsewhere the platforms have a 1½-in. crown at the center for drainage.

In conjunction with the station project, a new auto-

NEW DEPOT at Davenport, N.D., provides economical and attractive building for transacting freight and passenger business of both GN and NP at that point.

NORTHERN PACIFIC side provides entrance to waiting room and overhead door to freight room. Corner bay window gives operator view of both lines.



STATION PLATFORMS alongside both tracks feature economical construction which uses ballast fines enclosed by creosoted timber curbs. The entire station has a concrete floor which is painted in the waiting room and office.

matic interlocking system was installed at the crossing replacing a manually operated interlocking in a tower opposite the station. The old tower has been retired. A new train-order signal mast has been installed at one corner of the depot to govern GN movements.

On the NP side, a banner-type train-order board is provided.

Although owned jointly by the two roads, the new station and auxiliary facilities were built by the Northern Pacific, using its own forces for all the work. The project was carried out under the general direction of H. R. Peterson, chief engineer, and the design was completed under the direct supervision of A. A. Melius, architect.

How Radio Helps the Lackawanna

End-to-end and train-to-wayside communications on through freights on 260 miles eliminates many stops

As an aid in reducing delays, and thus improving service to shippers, the Lackawanna has equipped freight locomotives and cabooses for end-to-end and train-to-wayside radio communication. This system is now in service on all through freight trains operated on 260 miles between Scranton, Pa., and East Buffalo, N.Y., wayside radio for communication with trains being in service at four intermediate offices—New Milford, Owego, Bath and B. & O. Jct.

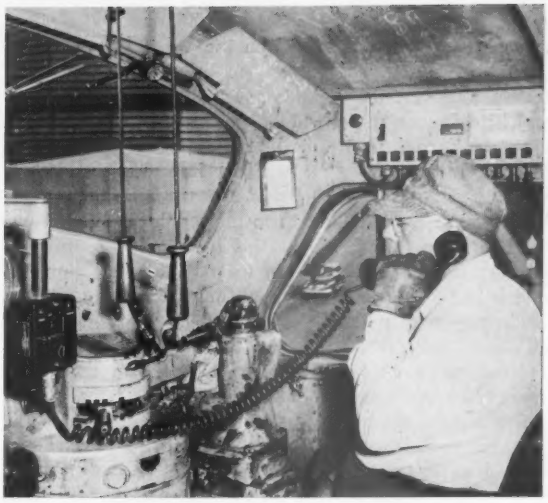
Twenty-eight diesel locomotives are regularly assigned for through freight service in this Scranton-Buffalo territory, on which about 24 to 26 through freight trains are operated daily. Each of these locomotives consist of one intermediate unit and two end units, each of which has a cab on one end. All cabs are equipped with 12-volt power supply, antenna and wiring for radio. The radio transmitter-receiver sets are the plug-in type which are easily transferred from one cab to the other.

Each such locomotive will haul a train of about 4,200 gross tons, either way between Scranton and Buffalo, without a helper on any of the grades. A grade of about 1 1/2 per cent ascends westward for about 7 miles from Scranton to Clarks Summit, then the grade descends westward at about 0.7 per cent for 7 miles to just east of Nicholson. Between Mount Morris and B & O Junction the grade ascends at about 0.65 per cent for about 12 miles. Eastwardly between Groveland and Wayland there is an ascending grade of 1.14 per cent for about 12 miles, and between Nicholson and Clarks Summit a grade of 0.68 per cent ascends for about 12 miles. These are the principal ruling grades.

On much of the remainder of this division the track is along streams or traverses rolling territory. Thus this division is considered a fast track, compared with the more mountainous territory east of Scranton. For ordinary freight, the maximum permissible speed is 50 mph, and the schedule time either way between Scranton and East Buffalo is 11 hours. Several manifest trains hauling perishables, merchandise, etc., are operated at 60 mph in each direction. Train No. 20, made up mostly of highway trucks on flat cars, and other high-class freight, makes the 260-mile run in 6 hours 15 minutes.

How Radio Saves Train Time

In addition to the through freights, a local freight and five passenger trains are operated each way daily, with an additional local passenger train between Scranton and Binghamton. Thus a total of 36 to 38 trains are operated daily on this double-track line. On the through freights, the locomotives, as well as the engine



ENGINEERS USE THEIR radio to talk with the . . .

CONDUCTORS in cabooses and . . .

OPERATORS at wayside offices.

and train crews, run from Scranton to East Buffalo, or return. These freights are given the "high iron." When they infringe on the "time" of important passenger trains, however, the freights must get out of the way, and in doing so, the end-to-end radio is a big help. For example, as the train pulls into a siding, the conductor uses the radio to keep the engineer informed as to what is required to get the rear of the train in the clear; "three more car lengths," "two more," "one more," and "O K." Likewise, when departing from a siding, the conductor can radio the engineer to tell him when the rear end is out on the main track so that the speed can then be increased to normal.

Where there is no siding, a freight must be backed through a hand-throw crossover to wait on the other main track while the passenger train of the same direction goes by. When making such a move, the conductor uses the radio to tell the engineer when the rear of the train has passed the crossover; and when the switches are thrown, ready for the train to be backed. This use of radio saves about 20 min compared with previous practice using hand signals and guessing.

When a passenger train in the opposite direction on the other main track is due to make a station stop, an approaching freight must not pass the station. By using the radio to learn of the progress of passenger trains, the freights can "lay back" and thus keep moving without a stop, which would cause extended delay at some places.

Previously when the conductor saw a hot box or dragging equipment on his train, he would try to use hand signals to tell the engineer to stop. Because of the curves and hills, the engineer would fail to see these hand signals and therefore the conductor was required to "pull the air" to stop the train. Too often this resulted in a "break-in-two" which caused damage and extended delay. Previously there was an avereage of 16 "break-in-two's" per month on this division. In a recent month, since the radio was in service, there was only one "break-in-two."

In one instance an operator in a wayside office saw a hot box on the fifth car from the rear end of a train. He used the radio to tell the conductor. The conductor radioed the engineer to slow down, and stop at a spur immediately ahead of the train. The conductor used the radio to spot the train and make the cut at the correct place, so that the car could be set out quickly and the train recoupled ready to go in a short time. All this was done in 20 min, thus saving 25 to 40 min switching time. Moreover, the train was stopped quickly and at a location where there was a sidetrack.

Three of the intermediate wayside radio stations are in offices where operators are on duty 24 hours every day; the fourth is manned sixteen hours. These operators use the radio and regular telephone lines to know when trains are approaching. Each operator watches every train as it passes, and if he sees a hot box or defective equipment, he uses the radio at once to tell the engineer and conductor so that the train can be stopped promptly for inspection. On a foggy day not long ago, an automobile was stalled on the track at a street crossing just east of Owego. Knowing that an eastbound freight was not far away, the operator used the radio to tell the engineer, and the train was stopped short of the crossing.

When a through freight is to set off or pick up cars at intermediate places, such as B & O Junction, the radio is used between the engineer, the conductor and the operator in the wayside office to exchange information, and thus expedite the work so that the train is again on its way 15 to 20 min sooner than otherwise possible.

At Gouldsboro the Lackawanna has a dock for icing refrigerator cars, which in many instances are scattered through the length of a train. Previously much time was lost in using the hand signals to spot each refrigerator car at the dock. Now, the dock foreman has a walkie-talkie radio to talk to the engineer, so cars can be spotted and iced quickly, saving 10 to 20 min in many instances.

Why Two Radio Channels?

All of the radio equipment on the trains or in the wayside offices can be operated on either of two channels. Ordinarily, channel No. 1 is used for communication between the locomotive and the caboose of a train, and channel No. 2 for conversation between wayside offices and either the caboose or engine of a passing train.

All of the radios normally are set to receive on channel No. 1. If channel No. 1 is busy and the conductor, engineer or wayside operator wants to talk to another party, he breaks in on channel No. 1 to say "Caboose 844 come in on channel 2." Thus when two trains are within range of each other, or within range of a wayside office, two conversations can be handled at once.

A further advantage of the two frequencies is that later, when radio is installed in the terminals, the second frequency can be used for the wayside and switch engines in the terminal area, and the road trains can switch over to the No. 2 channel to call the yardmaster when approaching the yard.

All of the radio equipment on the locomotive and on the cabooses is the same type, and is therefore readily interchangeable—which is important from a maintenance and operating standpoint. This radio equipment is the Bendix type MRT-6BD, including the transmitter, receiver and power supply as a complete unit, equipped with plug couplings so that a defective unit can be easily and quickly replaced.

This radio equipment operates on 12 volts direct current. On the locomotives this 12-volts d-c is fed from the d-c side of the motor-generator, the motor side being fed from the 64-volt engine starter battery. On each caboose there is a set of 9 cells of 260-ah Edison storage battery which supplies the 12-volt d-c for the radio.

This battery is charged by a rectifier and regulator which is fed from a Leece-Neville alternator connected by a Dayton belt drive to an axle pulley. This alternator is rated at 14 volts, 100 amp at 15 mph. In addition to the radio, the alternator and battery are connected to feed not only the radio but also several 12-volt electric lamps on the caboose.

History records that the Lackawanna installed and operated radio communication between moving trains and three wayside offices in 1913, which is claimed to be the first train radio. Two of the men responsible for this development were J. J. Graff, then telephone engineer of the Lackawanna, and a young telegrapher employed by the Marconi Company, David Sarnoff, now chairman of the board of RCA.

The Cars the Shippers Want

- 40-ft 6-in. box, 52-ft 6-in. gondolas and 53 ft 6-in. flats in greatest demand
- Load separators wanted by 40% of boxcar users, 27% of gondola users
- Many shippers dissatisfied with the ride their carloads get

What kind of cars do shippers want? Have they definite ideas as to size, as to types of equipment used to help secure loads, as to floors, and certain mechanical features intended to reduce damage or delays in transit?

To obtain the answers to these questions letters and questionnaires were sent to 956 shippers, most of whom were located in eight states, and in addition to a number of companies using flat cars and gondolas to arrive at a good balance among three car types—box cars, flat cars and gondolas. The mailing list was taken from the circulation list of *Railway Freight Traffic*, a sister publication of *Railway Age*.

The forms were sent out on May 26 and a follow-up letter was mailed June 23. Returns from the first letter were 134, of which 90 reported on box cars, 30 on gondolas and 30 on flat cars. Several returned forms for two types of cars and a few for all three types.

The answers printed here summarize the returns received in reply to first letter. Later a complete analysis will be made of the returns received from both letters, as of this writing amounting to over 28 per cent of the shippers to whom forms were sent.

The Products Shipped

The products loaded by the shippers who replied include almost every kind of goods which move in carload lots. Of the box-car replies, 48 per cent specify Class A cars, and 15.5 per cent, either Class A or B cars. This means that Class A cars are preferred but Class B are acceptable when Class A are not available. Another 13 per cent call specifically for the Class B car. Those who specify Class A cars ship over 150,000 carloads a year; those to whom Class B cars are acceptable ship over 110,000 carloads a year.

Among the products for which Class A cars alone are specified are several types of machinery and parts, enameled sheet-steel products, several nonferrous metals and their products, coated welding electrodes, finished lumber and plywood, certain building materials, prefabricated houses, television instruments and cabinets, phonograph record compound, glass bottles and jars, alcoholic liquors, a variety of paper and paper products, cement and lime in sacks, grain and grain products, animal and poultry feeds, sugar, and dry groceries. Products for which Class B cars are acceptable include wire and wire products, steel drums, range boilers and tanks, water heaters, electric household appliances, incandescent and fluorescent lamps, lubricants, polishes and cleaners, toilet articles, processed foods in cans or glass, beverages, paint and paint materials, waste paper, and rags and scrap bagging.

Box Cars

The box-car questionnaire contains 16 questions which pertain to features of the car in which the shipper is primarily interested. These deal with the preferred dimensions of the car, the size of door and what kind of load-securing equipment the shipper wants, what kind of floor, whether cars are satisfactorily weather-proof, and the shippers' attitude toward insect infestation.

Gondolas and Flat Cars

In the gondola and flat-car questionnaires there are seven questions which deal with dimensions and load-securing equipment. An eighth question in the gondola series explores the interest of shippers in removable roofs.

Operating Equipment

In each of the three questionnaires six questions pertain to factors affecting the performance of the freight car so far as the development of loss and damage and delays in transit are concerned. These questions are the same in all three series.

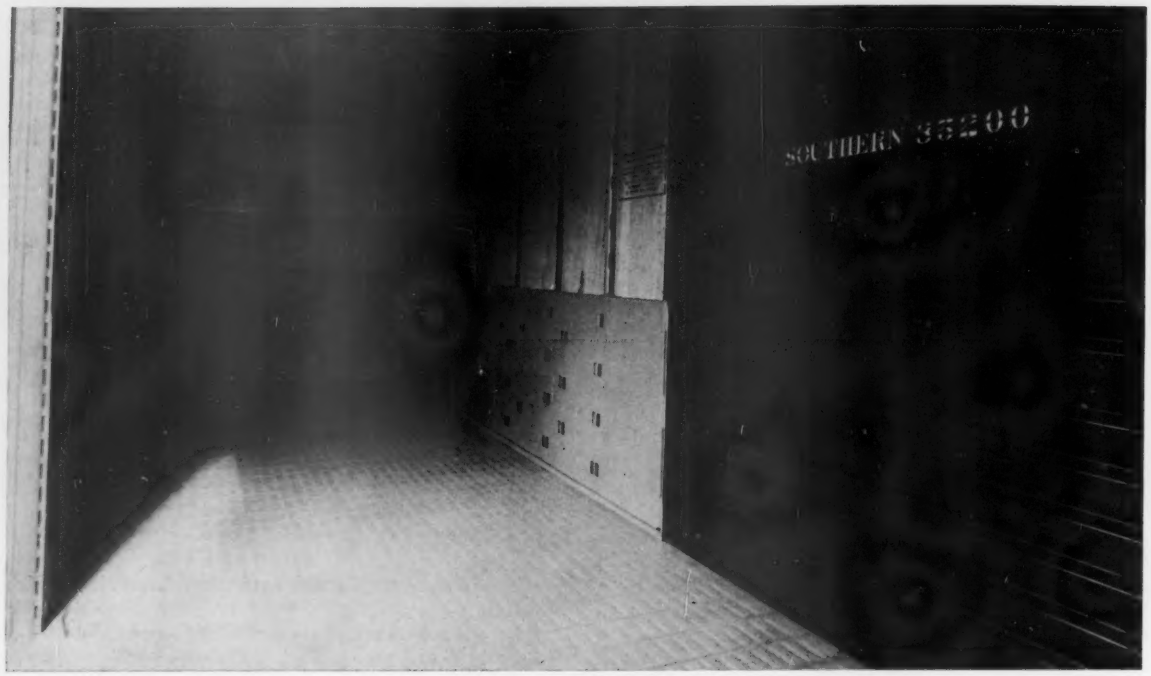
Loss and Damage

In each series the shippers are asked to set down the percentage of carload shipments on which they filed claims. Of the box-car shippers, 15.5 per cent reported no claims and 58.7 per cent reported some claims, of whom over 40 per cent had claims applying to five per cent or less of their carload shipments.

For gondola cars, 37 per cent reported no claims, and 40 per cent reported claims. Three fourths of those who reported claims reported them for one per cent or less of their gondola carload shipments.

Of the flat car shippers, 27 per cent reported no claims, and 60 per cent reported claims. Almost 90 per cent of those who reported claims, reported them on one per cent or less of their carload shipments.

The questions were arranged so that most could be answered by checks in appropriate spaces. These questions and summary of the answers are printed herewith. The numbers show the nearest full per cent of the



A MODERN BOX CAR—Steel wainscot, Nailable steel floor, 9-ft doors, and lading strap anchors. Some have cushion underframes and Timken bearings. Roof louvers reduce condensation inside the car.

shippers replying to each questionnaire. The difference between the totals for each question and 100 indicates the per cent of those replying to the questionnaire who did not reply to that particular question.

Box Cars

- **Is the size of box car important to you?** Yes **74.** No 23.

  If so, please indicate the dimensions you consider most desirable:

  a. Length: 40 ft 6 in., **52;** 50 ft 6 in., **38;** Other lengths: **36 ft 6 in. to 46 ft by 4 per cent, no two alike;** Unimportant **15.**

  b. Inside Height: 10 ft 6 in. **38;** 10 ft **16;** Other, 10 ft 9 in. by **1%;** Unimportant **36.**

  c. Is 9 ft 2 in. a satisfactory width? Yes **86;** No **11.**

  d. If not, please specify the width you need. Widths between 9 ft 4 in. and 10 ft 6 in. were indicated by 10%.

  e. Width of doors (Please do not indicate a wider door opening than you actually need to load and unload your products with ease): 6 ft, **28;** 8 ft, **40;** 9 ft, **16;** 14 ft, **19;** 15 ft, **2.**

  f. Capacity, lb: 50,000, **28;** 60,000, **10;** 80,000, **29;** 100,000, **40;** 120,000, **12.**

- **Are insulated box cars useful in moving your products?** Yes **13;** No **84.**

  If so, do you usually get them when you want them? Yes **6;** No **7.**

- **Do you need some type of load retainer or load separator?** Yes **43;** No **53.**

  If you do, please check the type you need (one or more):

  a. Strap anchors, **14.**

  b. Adjustable separators or compartmentizers, **27.**

  c. Auto-type loading devices, **2.**

  d. Devices designed specifically for your prodcut, **7.**

- **Are present box-car floors with one lengthwise support between side and center sill adequate?** Yes **89;** No **9.**

  If not, indicate the type of floor you consider adequate:

  a. Wood floor with two lengthwise supports each side of center sill, **3.**

  b. Wood floor with three lengthwise supports each side of center sill, **3.**

  c. Nailable steel floor, **7;** wood and steel nailable floor, **4.**

  Do you believe plastic floor surfacing is of value on any of these floor types? Yes **30;** No **52.**

  If so, please indicate the types of floor on which you believe it is of value: Wood, **24;** Nailable steel, **7;** Wood and steel, **8.**

  Do you believe that perforated metal floor protectors in box-car doorways make wood car floors of the following types satisfactory?

  a. Conventional: Yes **64;** No **10.**

  b. Two lengthwise supports on each side of center sill: Yes **11;** No **6.**

  c. Three lengthwise supports on each side of center sill: Yes **8;** No **3.**

TARPAULIN-COVERED floating skids keep steel coils separate and cushion longitudinal shocks. This device was developed on the Nickel Plate.

- **Are the cars you load satisfactorily weather proof?** Yes **86;** No **9.**
  If not, where do the cars leak? Around the doors, **10;** Roof, **11;** Elsewhere, **0.**
- **Do your shipments suffer from insect infestation?** Yes **12;** No **86.**
  Have you had experience with fiber glass insulation used in box cars to overcome this difficulty? Yes **4;** No **63.**
  If so, did you find it effective in preventing infestation? Not at all **0;** Partially **3;** Completely **1.**

Gondolas

- **What type of gondola best serves your needs?**
  a. Solid bottom: Fixed ends, **63;** Drop ends, **33.**
  b. Drop-bottom, transverse doors: Fixed ends, **3;** Drop ends, **0.**

Please indicate the dimensions of the gondola best adapted to your needs:

a. Length: 41 ft 6 in., **30;** 52 ft 6 in., **70;** 65 ft 6 in., **17;** Other lengths: **0;** Unimportant **10.**

b. Inside height: 3 ft 6 in., **20;** 4 ft 0 in., **7;** 4 ft 6 in., **23;** 5 ft 0 in., **10;** 5 ft 6 in., **13;** Other: **3% suggested 3 ft 3 in.** Unimportant: **23.**

c. Capacity, tons: 50, **50;** 70, **30;** 90, **13;** Other: **Capacities of 27 to 35 tons and 100 tons, respectively, suggested by two shippers.**

- **Would some type of load retainer or load separator be of use to you?** Yes **27;** No **63.**
  Are hold-down clips on the side sills of gondolas useful to you? Yes **47;** No **43.**
  Do you find them on the cars you load? None **13;** A few **63;** On most cars **3.**
- **What type of floor best meets your requirements?** Solid steel **23;** Nailable steel **7;** Wood and steel **57;** Wood **10.**
  What value would removable roofs on gondolas be to you? None, **50;** Minor, **37;** Substantial, **3.**

Flat Cars

Please indicate the dimensions of the flat car best adapted to your needs.

Length: 40 ft 0 in., **30;** 50 ft 0 in., **43;** 52 ft 6 in., **47;** 53 ft 6 in., **73;** Other: **10% could use 60-ft cars** Unimportant, **20;**

Floor width: 9 ft 0 in., **7;** 9 ft 4 in., **23;** 10 ft 4 in., **11;** 10 ft 6 in., **70;** Other: **None suggested;** Unimportant **27**

- **Are flat cars with permanent ends 8 ft high of use to you?** Yes **17;** No **80**
  If important to you, are you able to get enough of them? Yes **7;** No. **3**
  If not important to you, would cars so equipped be objectionable? Yes **50;** No **33.**
  Do you prefer cars with hold-down clips on the side sills in addition to stake pockets? Yes **53;** No **40**
  Roughly, what per cent of your flat-car loads call for
  a. Depressed-center cars: **Half of the shippers'**

(Continued on page 45)

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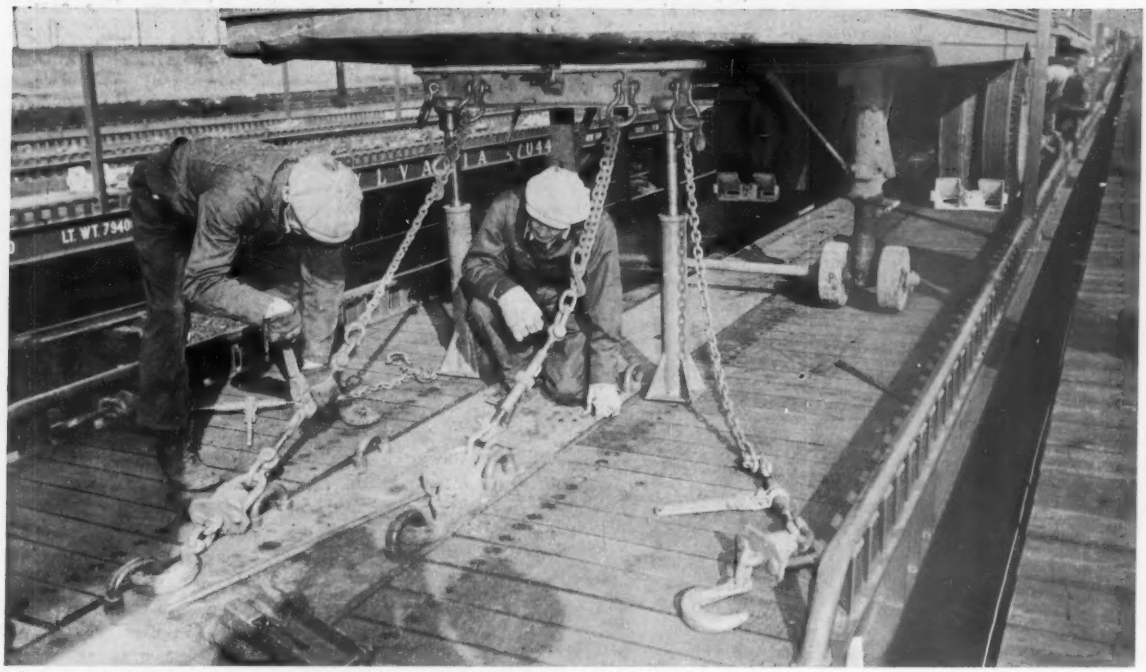

FLAT-CAR DESIGN is influenced by the spread of the piggyback service. These Pennsylvania cars are 75 ft long with side rail hold-down attachments.

(Continued from page 41)

replies indicate no need for depressed-center cars; 20% of the replies indicated the need for these cars on 1% or less of their flat-car loads; 3% need depressed-center cars on 2% of their flat-car loads; 7% use them on 5% of their loadings; 12% of the replies call for depressed-center cars on 2 to 12% of loads.

b. Well type cars: **Over half of the shippers do not use well type cars; 27% use them in varying degree on 1 to 5% of their loads.**

Mechanical Features

- **Are you satisfied with the kind of ride your products get by rail?**

  Box Cars: Yes **39;** No **57**
  Gondolas: Yes **60;** No **33**
  Flat Cars: Yes **50;** No **56**

  If you are not satisfied, does your experience suggest to which of the following (either "a" or "b" or both) you attribute the unsatisfactory ride:

  a. Vertical shocks arising largely from the action of car trucks?
     Box cars: Yes **13;** No **4;** Don't know **17**
     Gondolas: Yes **3;** No **0;** Don't know **13**
     Flat Cars: Yes **10;** No **7;** Don't know **23**

  b. Longitudinal shocks arising from variations of speed between cars in the train?
     Box Cars: Yes **42;** No **3;** Don't know **13**
     Gondolas: Yes **27;** No **0;** Don't know **13**
     Flat Cars: Yes **30;** No **6;** Don't know **20**

  c. Any other cause? Box Cars: 39% of the shippers suggest such causes as humping, switching shocks, rough handling and overspeed impacts; 2% named vertical shocks, and 1%, improper loading.
     Gondolas: 20% suggested humping, 3%, shifting loads
     Flat Cars: 43% suggested such causes as rough handling, switching, humping, and coupling impacts

Have you had experience with:

a. Cars equipped with long travel truck springs and built-in snubbers:
   Box Cars: Yes **8;** No **71**
   Gondolas: Yes **7;** No **60**
   Flat Cars: Yes **10;** No **67**

b. Cushion Underframes:
   Box Cars: Yes **11;** No **60**
   Gondolas: Yes **10;** No **60**
   Flat Cars: Yes **13;** No **63**

What effect have these features had in improving the ride?

a. Trucks with built-in snubbers and long-travel springs:
   Box Cars: None, **0;** Minor, **1;** Substantial, **4;** Don't know, **10**
   Gondolas: None **0;** Minor **0;** Substantial **7;** Don't Know **10**
   Flat Cars: None **0;** Minor **0;** Substantial **10;** Don't know **20**

b. Cars equipped with cushion underframe:
Box Cars: None **0**; Minor **3**; Substantial **6**; Don't know **9**
Gondolas: None **0**; Minor **0**; Substantial **7**; Don't know **10**
Flat Cars: None **0**; Minor **0**; Substantial **13**; Don't know **20**

Would the presence of either or both of these devices on all freight cars which you order for loading influence you to give more business to the railroads?

a. Trucks with long-travel springs and built-in snubbers:
Box Cars: Yes **14**; No **46**
Gondolas: Yes **7**; No **57**
Flat Cars: Yes **27**; No **40**

b. Cars equipped with cushion underframes:
Box Cars: Yes **23**; No **41**
Gondolas: Yes **10**; No **50**
Flat Cars: Yes **27**; No **33**

- **Are delays due to hot boxes sufficiently frequent on cars you load to be a matter of concern to you?**
Box Cars: None **10**; Minor **42**; Substantial **4**; Don't know **37**
Gondolas: None **13**; Minor **40**; Substantial **3**; Don't know **33**
Flat Cars: None **0**; Minor **30**; Substantial **17**; Don't know **43**

Off the Top of the Shipper's Mind

An invitation to shippers to express their personal comments on the freight-car situation was included at the end of each questionnaire. About 90 specific comments were made by over 80 shippers in response.

Box Cars—The comments on box cars, of which there were 46, may be classified in several groups. **The largest number of comments on a single subject pertained to vertical and longitudinal shocks.** While the specific suggestions were not all of practical value, they all indicated clearly that something must be done about them if a fairly large percentage of carload shippers are to be satisfied. At least one comment indicates an awareness of the value of the cushion underframe, and several who do not associate the difficulty with any specific measures for meliorating it want measures taken to reduce the destructive effect of both horizontal and vertical shocks.

Next in point of numbers are the comments which deal with the value of compartmentizers or other load-securing equipment which make it possible to break up the mass of the load into relatively small units and so reduce the destruction which results from the shifting of the load in a box car when it moves as a single mass under heavy road and yard shocks. In the minds of the shippers, humping is the major cause of rough-handling damage. One comment on damage from vertical shocks cites the bouncing of a 10,000-lb machine as much as 14 in. above the car floor over the top of the blocking intended to keep it in place.

Floors, doors and infestation were the subjects of comment, decreasing in number in the order named. The need for better floors was stressed by several commentators, with emphasis on good wood floors. One commentator suggested that floors should be laid lengthwise; that they can stand double the impact which transverse floors can stand without damage. Perforated metal plates in doorways were frowned upon by two shippers. They are considered a source of contamination to bulk food products and a source of damage to bagged sugar.

Doors follow floors very closely in the number of comments. Most of the comments indicate the desire for wider doors so cars can be loaded with power trucks. Others suggest more cars with end doors and doors which can be operated "without block and tackle."

Refuse behind the lining is a source of infestation which makes box cars less than desirable for the shipment of bulk products ultimately intended for human consumption. The problem of sweating and the measures taken to overcome it are still a source of dissatisfaction. Coatings on the underside of roofs to prevent sweating tend to melt and drip on the load in hot weather, and tend to crack and flake off into the lading in cold weather. Floor sealers are sticky in hot weather and, when they do not dry, leave a contaminating odor in the car.

Other comments deal with the shortage of cars in general and of certain types or sizes of cars in particular. Several comments emphasize the need for more 50-ft 6-in cars, wider and higher 40-ft 6-in cars and more insulated box cars. Two shippers want stronger ends. Removable roofs are suggested for loading prefabricated houses, and one shipper wants Timken roller bearings.

***Gondolas*—Of the shippers who returned gondola questionnaire, 18 made comments. Six of these related to the problem of securing the lading against damage caused by the shifting of the load in the car.** Three of these suggest equipping the car for the use of crossbars or removable partitions for dividing the load. Two emphasize the importance of protecting steel coils and sheets against damage. To accomplish this, one suggests lining the end gates with 3 in. of hardwood. Several shippers speak of the need for more long cars, for higher capacity cars, and the occasional need for extra wide cars.

Three shippers of machinery emphasize the importance of good wood floors for properly securing this type of lading. One machine-tool builder reports building roofs over a number of gondolas loaded with new machines.

Three shippers find present gondolas adequate; one—a shipper of cast-iron pressure pipe—reports that substantially all cars are in bad condition.

Flat Cars—The comments of 21 flat-car shippers ranged widely, some referring to matters outside the range of the questionnaire itself. The most numerous group among these comments call for better floors, wider cars, more cars of 140,000 lb capacity and for more cars with decks not over 3 ft 4 in. or 3 ft 5 in. above the rail. Single individuals came up with such suggestions as hold-down clips, pockets in floors for lengthwise cabling of the load, more fixed 8-ft ends for lumber loading, and the need for improved journal boxes, brake rigging, and wheels.

Then, in appreciation of the efforts of the railroads to improve their service, one shipper notes fewer complaints as to rough handling and bad-order delays during 1955 than last year.

The plea for a larger supply of flat cars, while not frequently repeated, is none the less emphatic.

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Mobilization Need Is 320,000 Cars

Conway Committee tells ODM that many should be built in three-year period of emergency—Recommends stockpiling of component parts

An advisory committee to the Office of Defense Mobilization has determined that 320,000 new freight cars should be built during a three-year period of full mobilization. It has recommended that plans for meeting the need be a combination of arrangements for advance stockpiling of component parts and allocations of additional materials during the mobilization period.

The committee is ODM's Consultants Committee on Railroad Equipment, headed by Granville Conway and thus known as the Conway Committee. Captain Conway is president of the Cosmopolitan Shipping Company of New York. Other members of the committee include railroad officers and industrial traffic executives.

Three reports were made to ODM—one by the committee's Freight Car Section, which is headed by W. C. Baker, vice-president, operation, Baltimore & Ohio, one by the Passenger Car Section, which is headed by F. J. Orner, general manager, New Haven, and the third by the Locomotive Section, which is headed by J. E. McLeod, chief mechanical officer, Chesapeake & Ohio. The freight-car recommendations are based on traffic estimates which anticipated that, by the third year of mobilization, the rail traffic volume would be 65% above the 1953 level.

The freight-car fleet with which the committee started was the railroad and private ownership as of January 1, 1955—2,030,000 cars. It called for additions of 112,000 new cars in the first year of full mobilization, 118,000 in the second year, and 90,000 in the third year—figures made public previously when they were discussed by ODM Director Arthur S. Flemming in his recent testimony before a House committee investigating the "fast amortization" program (*Railway Age*, July 18, page 7). The total of 320,000 would allow for the scrapping of 35,000 cars in each of the three years, making the net increase 215,000 cars.

Financing the Stockpile

The stockpile of component parts would be financed initially by the government, but would be expected to become self-supporting as builders paid for materials withdrawn. "Monies derived from withdrawals from the stockpile," the report said, "would be used for replacement. The established stockpile would be self-supporting and, on liquidation, should return to the government an amount substantially equivalent to the initial outlay. No 'give away' features are intended or are inherent in this plan."

The committee's final word on this stockpiling proposal has not been said. Captain Conway has appointed a subcommittee to give the matter further study and come up with specific recommendations for launching and operating the program.

As to passenger cars, the committee recommended expansion of the present program under which cars ready for retirement from railroad service are being leased to the government for storage as a mobilization fleet. Under the plan, the government pays annually an amount equal to a nominal interest charge on the scrap value of the stored cars. It was found generally that military needs for passenger service would be met during an emergency "until such time as additional passenger equipment can be constructed." At the same time, it was recommended that the stockpiling operation be extended to passenger cars.

As to locomotives, it was found that the present fleet would meet mobilization needs—except for a possible shortage of yard switchers. The stockpiling recommendation here was that builders and carriers "moderately" increase their inventories of "large, assembled diesel parts, such as engines, generators, traction motors, turbochargers, air compressors, steam generators, etc., readily available at shops of the builders and at strategic points on the railroads."

Freight Car Recommendations

The committee's detailed recommendations as to freight cars were set out in a summary statement:

1. The committee believes that the annual production of 60,000 freight cars, other than tank cars, can be built during mobilization for which material and manpower should be definitely provided for in mobilization plans, these to be purchased by the carriers.

2. The committee understands that accelerated pipeline construction adequate to avoid any large-scale temporary shift of long haul petroleum traffic to railroads is being considered, and in the event of adoption, will eliminate the need for diverting approximately 60,000 tank cars to protect the coastal petroleum tonnage for movement by the rails. In the meantime, pending further clarification of this important feature, the committee recommends the building of 3,000 large capacity, general service tanks for oil, gasoline and like traffic, in each of the three mobilization years.

The committee also recommends the adoption of a goal of 6,000 specialized tanks for commercial service such as L.P.G., chemicals, etc., to be stockpiled in components. The committee further recommends the construction of an additional 13,500 large capacity general service tank cars for oil, gasoline and like traffic for mobilization years I and II. This would total 28,500 new tank cars with a projected retirement of 6,500 in years I and II, or a net gain of 22,000 tank cars.

3. To cope with the remaining 112,000 deficit, the committee recommends the establishment of a revolving stockpile of critical components by commercial car builders and manufacturers of the components from which withdrawals may be made in turn as orders are received from car builders and from individual railroads which have facilities and do car building, this program to be initially financed by the federal government, but to be reimbursed as withdrawals are made by the car builders or the carriers.

Roads Can't Stockpile Cars

Failure of the railroads to meet freight-car ownership goals established under the defense program, the committee said, has been due to the financial condition of the

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carriers, which, in turn, was due to diminishing traffic volume. While it was recognized that full mobilization would require the railroads to furnish the major portion of intercity transportation, "there was agreement," as the report put it, "that the committee could not emphasize too strongly the impracticability of the rail carriers maintaining sufficient excess equipment in peacetime to take care of extraordinary increases in traffic they would be called upon to move in a wartime economy." The report added:

"Recognition of the above prompted the thorough evaluation of ways and means to provide an adequate car supply. . . . It is the belief of the committee that unless positive action is taken to build up some reserve in advance of mobilization along lines which prompted the appointment of the subcommittee to study and progress stockpiling of components, the requirements under full mobilization will not be satisfactorily met."

The traffic estimates contemplate that the railroads would be called upon to handle 1,062 billion ton-miles of freight in the third mobilization year. As noted above, that would be 65% above their 1953 volume, although the total traffic increase for all agencies is put at only 19% above the 1953 level. "Main trackage and yard facilities are generally adequate for the increase, considering the continuing program of improvements at various places throughout the country," the report said.

Motive Power Potential

The conclusion that the locomotive fleet is also generally adequate is based on findings that much more work could be got out of the fleet under mobilization conditions. The diesel fleet's present potential, based on 1952 performance, was put at 698.8 billion net ton-miles for each of the three mobilization years. The steam-electric fleet's potential was put at 81.6 billion net ton-miles for the first year, 69.7 billion for the second year, and 46.6 billion for the third year. Thus the total "unweighted" potential for the first mobilization year was put at 781.4 billion net ton-miles, while ODM's traffic estimate was 845 billion net ton-miles.

It was concluded, however, that the diesel fleet's potential could be raised 10%, or 70 billion net ton-miles, as a result of a 7-day-week economy. Thus the potential for the first mobilization year became 851.4 billion net ton-miles—6.1 billion higher than the ODM traffic estimate.

In like fashion it was estimated that the diesel fleet's potential could be further expanded to take care of the higher traffic expected in the second and third mobilization years. The further expansion (to a cumulative total of 32.5% in the second year and 45% in the third) would come as a result of increased traffic density, premium diesel maintenance, and "legal relaxations," i.e., easing of ICC testing and inspection requirements.

To cure prospective shortage of yard switchers the committee recommended "some production (a minimum of 750 units in Year II, 475 in Year III) as required, these to be purchased by the carriers." It added: "In view of the fact that production capacity is in the neighborhood of 3,000 units per year, this problem is strictly solvable by granting (from government agencies) manpower and materials to implement production."

In its discussion of the storage plan for cars about to be retired, the report of the committee's Passenger Car Section revealed that 1,066 cars are already in storage. Meanwhile, it said that, "regardless of the continuing trend in luxury-like passenger equipment, it should be understood that military departments would use any of the types available if wartime requirements could not otherwise be satisfied."

The committee made no estimate of civilian travel under mobilization. It did not consider such an estimate essential to the problem at hand—because "civilian travel will necessarily be handled as conditions permit after military requirements are satisfied."

The report went on to say that military requirements contemplate a different type of car from those currently being purchased for civilian travel—so "any program of constructing new equipment specifically designed for acceptable commercial use and subsequent speedy conversion to military use appears to be impracticable." Thus the recommendation that provision for military requirements be developed around the storage program for older type cars, and cars specifically designed for military service, such as troop sleepers, kitchen cars, etc.

Would Give Rails Military Business

This passenger-car report closed with a warning that the diversion of traffic to other agencies may weaken the railroads for wartime jobs.

"The continued diversion of passenger travel from railroads to air and highway travel," the report said, "serves to increase the problem which the railroads will have in meeting the impact of emergency travel. There is substantial evidence of an aggressive campaign on the part of the railroads to reverse this trend. As this develops there will be opportunitis for governmental cooperation such as continued tax amortization and other arrangements for financing.

"The Passenger Car Section recommends that railroad proposals to augment their passenger-train operations be favorably considered by appropriate federal government departments and agencies, as a means of developing and maintaining equipment and services, so that emergency requirements for railroad transportation will be effectively satisfied. One very tangible feature has been the diversion of traffic from the railroads to other forms of transportation. It is indicated that the military will expect the railroads to handle the bulk of troop movements in an emergency. Present diversion of troop traffic should be reversed to meet long-range national defense requirements."

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Financial

(*Continued from page 10*)

Line interests, since the ACL had refused to allow the P&N to operate over the proposed line.

Terminal Railroad Association of St. Louis.—*Acquisition.*—The ICC has granted authority to the terminal association to acquire all properties of the St. Louis Transfer, a wholly owned line of the Wiggins Ferry Company, a Terminal subsidiary (*Railway Age*, July 18, page 40).

Operations

Erie, DL&W, Study Joint Use of Adjacent Facilities

Clarification of reports that the Erie and the Lackawanna are studying possible joint use of certain facilities (*Railway Age*, June 13, page 7) was contained in a statement issued August 9 by P. W. Johnston and P. M. Shoemaker, presidents of the respective railroads.

Priority will be given, the statement said, to studies of the possibility of having Erie trains use the Lackawanna terminal at Hoboken, N.J., instead of the Erie's present station at nearby Jersey City; and of possible joint use of freighthouses at Binghamton, N.Y., and Elmira. "It will be some time in the future before our people consider the practicability of any combination of passenger facilities or trackage" through or between the two latter cities, the statement said.

It emphasized also that "it will be some time before any definite conclusions are reached" on studies now under way, and added that "the making of the studies in no way implies a merger" of the two railroads.

The studies are being headed up, for the Erie, by Stanley F. McGranahan, assistant vice-president, and, for the Lackawanna, by John E. Mahoney, assistant to vice-president.

Securities

Security Price Averages

	Aug. 9	Prev. Week	Last Year
Average price of 20 representative railway stocks	91.75	95.06	70.37
Average price of 20 representative railway bonds	98.83	98.95	96.49

Application

BANGOR & AROOSTOOK.—To issue and sell at par $4,000,000 of 5⅛%, 40-year promissory notes, which would be exchangeable for income debentures of like yield and maturity. The proceeds would be used to redeem the road's 5% cumulative preferred stock which is outstanding in the amount of $3,828,000 (38,280 shares of $100 par). The stock is redeemable at 102½, so the operation will take $3,923,700. Before the present application was filed, the commission granted a preliminary BAR application for exemption of the note issue from the usual competitive-bidding requirements. Thus the road proposes to sell the notes without competitive bidding—$2,500,000 to Keystone Custodian Funds and $1,500,000 to Old Colony Trust Company, both of Boston, Mass. The sale was arranged by the First Boston Corporation as agent for the road, but not as underwriter of the issue. The indenture would include sinking-fund and redemption provisions, and interest payments would be contingent on earnings, although the interest would be cumulative. (*Railway Age*, August 1, page 13.)

Authorization

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—To issue $60,000,000 of 5% series A 50-year debentures to be exchanged for 600,000 shares of 5% $100-par, preferred stock now outstanding, on the basis of $100 of debentures for each share of stock (*Railway Age*, June 20, page 90).

Dividends Declared

BOSTON & ALBANY.—$2, payable September 30 to holders of record August 31.

CHICAGO, BURLINGTON & QUINCY.—$2, payable September 29 to holders of record September 14.

GULF, MOBILE & OHIO.—common, 50¢, quarterly, payable September 12 to holders of record August 22; $5 preferred, $1.25, quarterly, payable March 12, 1956, to holders of record February 17.

MAINE CENTRAL.—5% preferred, accumulated, $1.25, payable September 1 to holders of record August 16; 6% preferred, $1.50, quarterly, payable October 1 to holders of record September 23.

NORTH PENNSYLVANIA.—$1, quarterly, payable August 25 to holders of record August 18.

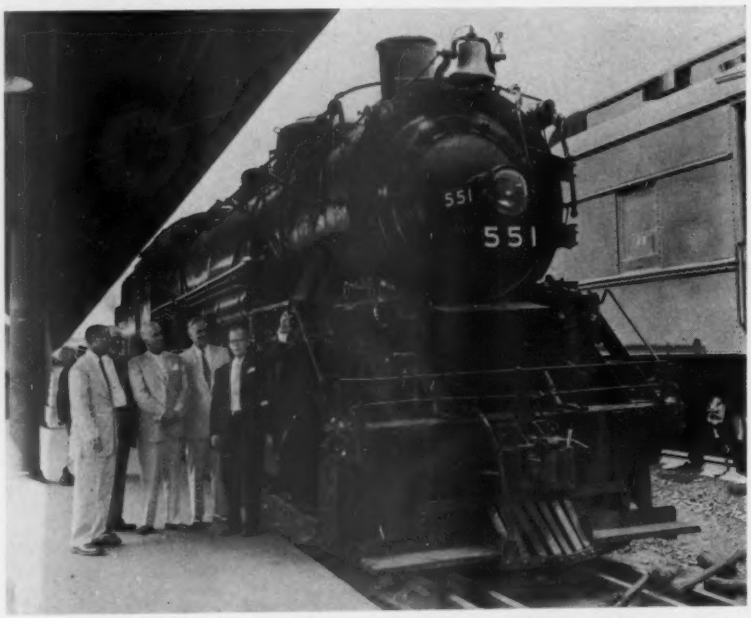
PITTSBURGH & WEST VIRGINIA.—50¢, quarterly payable September 15 to holders of record August 19.

RUTLAND & WHITEHALL.—80¢, quarterly, payable August 15 to holders of record August 1.

NEW LOCOMOTIVE TO BE "STANDARD" IN GM LINE

The locomotive nearing completion for the new General Motors lightweight passenger train (*Railway Age*, July 4, page 8), is not a "special job" for the GM train alone. It will be a standard part of the GM locomotive line applicable to any of the new lightweight train designs, a spokesman for GM's Electro-Motive Division has revealed.

Both the new train and its new lightweight locomotive will be on display at GM's forthcoming Powerama, to be staged near Soldier Field on Chicago's lake front August 30 through September 25. In addition to an extensive display of railroad equipment, the show will feature GM industrial power units of all types, ranging from grading machinery, through Electro-Motive's portable power plants, to jet aircraft engines and marine craft. Celebrating production this year of GM's 100-millionth diesel horsepower, the Powerama will be open with free admission from mid-morning (noon on Sundays) to 11 p.m. every day.



LATEST ADDITION to exhibits at the St. Louis Museum of Transport is this Chicago & Illinois Midland "Mikado," built by the Lima Locomotive Works in 1928, and recently retired in favor of diesel power. It was moved from Springfield, Ill., to the museum via Gulf, Mobile & Ohio, Terminal Railroad Association of St. Louis, and Missouri Pacific, with a brief stop (above) for presentation to St. Louis Mayor Raymond R. Tucker by M. E. Gustaveson, C&IM vice-president—operations.

Railway Officers

AAR Adds Waterway Specialist to Staff

Doswell Gullatt of Houston, Tex., has joined the staff of the Association of American Railroads as assistant to vice-president — waterway transportation. He will be in the department headed by Philip A. Hollar, vice-president—assistant to the president.

Mr. Gullatt, retired from the Army's Corps of Engineers as colonel in 1946. He has since been an administrator and engineering consultant in the oil and gas industry. During his Army service, he was associated with many waterway and harbor projects.

BALTIMORE & OHIO.—**Wilbur R. Galloway,** general manager, Central region, Pittsburgh, has been transferred to the Eastern region at Baltimore, succeeding **John Edwards, Jr.,** who retired July 31 after 44 years of service. **C. T. Williams,** general superintendent transportation at Baltimore, replaces Mr. Galloway as general manager at Pittsburgh. **T. J. Klauenberg,** superintendent, Monongah division, at Grafton, W. Va., has been transferred to the Cumberland division at Cumberland, Md., succeeding **A. W. Conley,** who has been named general superintendent transportation at Baltimore. **R. J. Cannon,** superintendent at St. George, Staten Island, N.Y., has been appointed superintendent of the Baltimore Terminal division at Baltimore, succeeding **C. E. Bertrand,** who has been transferred to Grafton, to replace Mr. Klauenberg. **H. O. McAbee, Jr.,** trainmaster at Pittsburgh, has been named assistant superintendent of the Baltimore division at Baltimore, succeeding **J. F. Stevens,** who has been promoted to superintendent at St. George, replacing Mr. Cannon. **John Edwards, III,** assistant trainmaster at Akron, Ohio, succeeds Mr. McAbee as trainmaster at Pittsburgh.

Ralph B. Fisher

Francis B. Rykoskey, assistant general superintendent motive power and equipment, has been appointed general superintendent motive power and equipment, with headquarters as before at Baltimore succeeding **Alexander K. Galloway,** who retired August 1, after 53 years of railroad service. A photograph of Mr. Rykoskey was published in *Railway Age* May 23, page 35.

Ralph B. Fisher, assistant superintendent car department, has been appointed superintendent car department, at Baltimore, succeeding the late **Arthur H. Keys. A. W. Gibson,** master mechanic at Benwood, W. Va., has succeeded Mr. Fisher.

CHARLESTON & WESTERN CAROLINA.—**W. B. Stackhouse,** roadmaster on the **Atlantic Coast Line** at Lakeland, Fla., has been appointed engineer maintenance of way of the C&WC at Augusta, Ga.

DENVER & RIO GRANDE WESTERN.—**William G. Luebke,** special representative of the purchasing department, has been appointed purchasing agent, succeeding the late **John S. Gabriel** (*Railway Age*, July 18, page 46).

G. F. Fitz-William, assistant general freight agent at Denver, has been appointed general freight agent—divisions. **J. S. Jarrett** and **M. A. Nelson** have been appointed assistant general freight agents at Denver and San Francisco, respectively. **P. J. Gamel** and **A. L. Burson** have been named assistants to freight traffic manager at Denver. **J. R. Cook** has become assistant to general freight agent—divisions at Denver.

DETROIT, TOLEDO & IRONTON.—**Edgar A Walther,** general freight agent, has been appointed freight traffic manager, succeeding **William E. Lillis,** deceased. **Grover U. Fairbanks,** general southwestern agent at St. Louis, has succeeded Mr. Walther.

FORT WORTH & DENVER.—**Guy C. Victory** has been appointed to the newly created position of executive assistant at Lubbock, Tex., effective August 1. **William N. Verner,** commercial agent at Fort Worth, Tex., succeeds Mr. Victory as general agent at Lubbock.

FRISCO.—**J. Edgar Nash,** general freight agent at St. Louis, has been appointed assistant freight traffic manager. **C. G. Stemmler, C. A. Pratte,** and **O. P. Wieland** have been named general freight agents, and **J. T. Kieffer** and **P. L. Phillips** have become assistant general freight agents. All will have headquarters at St. Louis.

R. W. Ege has been named electrical engineer; **W. R. Brown,** principal assistant electrical engineer, and **O. H. Summers, Jr.,** assistant electrical engineer.

J. P. Knox, acting superintendent car department, has been appointed superintendent car department, succeeding **P. F. Spangler,** who has retired after nearly 49 years of service.

ILLINOIS CENTRAL. — **J. S. Frost,** general industrial agent, has been appointed head of the industrial development department, succeeding the late **Walter W. Pace** (*Railway Age*, July 18, page 46).

LEHIGH VALLEY.—**G. A. Donlevy,** assistant general freight agent at Boston, has been appointed assistant freight traffic manager at Buffalo, succeeding **W. H. Morrison,** who retired August 1, after 50 years with the LV. **C. C. Dailey,** assistant general freight agent at Pittsburgh, has been named assistant freight traffic manager there, with added jurisdiction over the Cleveland agency. **A. W. Nelson,** district freight agent at Boston, has been appointed general agent there. **E. C. Long,** commercial agent at Boston, has been promoted to district freight agent there.

LOUISIANA & ARKANSAS.—**F. H. Hooper** has been appointed vice-president at Kansas City, Mo., and **Paul Sippel** has become vice-president at Shreveport, La.

MINNEAPOLIS & ST. LOUIS.—**Lou Gelfand** has been named director public relations at Minneapolis. His responsibilities will be supervision of company news releases and publications, close liaison with on-the-line community functions, and participation in the road's expanding industrial development program. Mr. Gelfand has been a member of the St. Paul Pioneer Press sports staff since 1947.

MISSOURI-KANSAS-TEXAS.—**R. A. Leahy,** chief clerk to freight traffic manager, has been appointed assistant general freight agent, succeeding **W. L. Meyers,** retired.

R. J. Winkowski has been appointed assistant auditor.

MISSOURI PACIFIC.—**Clarence F. Longstreth,** special representative, publicity department, at St. Louis, retired August 1 after 50 years of service.

G. W. Neimeyer has been appointed acting terminal master mechanic at North Little Rock, Ark., succeeding **W. F. Duncan,** who has been granted leave of absence because of illness. **H. E. Jamison** has been appointed acting road master mechanic at that point, succeeding Mr. Neimeyer. His jurisdiction includes the Union Railway.

NEW YORK, ONTARIO & WESTERN. —**Thomas B. Girard,** superintendent transportation at Middletown, N.Y., has been appointed general manager, succeeding the late **Ralph E. Wright** (*Railway Age*, July 18, page 46). **Edward J. Kelly** has been appointed superintendent car service. **Wilbur V. Wilson,** assistant to general manager, has been named

trainmaster, Southern district, including Weehawken terminals. The positions of superintendent transportation and assistant to general manager have been abolished.

NICKEL PLATE.—R. Laymon Mays, assistant to chief engineer at Cleveland, has been promoted to assistant chief engineer there, succeeding **C. R. Wright,** who retired June 30 after 49 years' service with this road.

H. S. Shadrach, assistant freight claim agent, has been appointed freight claim agent, succeeding the late **William Murphy.**

NORFOLK & WESTERN. — Claude W. Parrish, assistant superintendent transportation — passenger, has retired, after nearly 53 years of service. **P. D. Taylor,** supervisor of transportation, has been appointed to the new position of manager passenger, mail and express. He has been succeeded by **Chester A. Snyder, Jr.,** clerk in charge of passenger, troops and mail. **C. V. Holton,** assistant road foreman of engines at Bluefield, W. Va., has been named to a new position as assistant to superintendent transportation.

NORTHEAST OKLAHOMA.—As announced in *Railway Age* June 13, **S. Bland Herndon** has been appointed traffic manager at Miami, Okla. Mr. Herndon joined the road in 1941 as agent's helper, and was in military service from 1943 to 1946. Since returning to the Northeast Oklahoma he has been commercial agent, assistant general freight agent, and general freight agent with headquarters at Miami.

S. Bland Herndon

NORTHERN PACIFIC.—A special sales representative for its piggyback service in Minnesota has been appointed by the NP. He is **C. H. Wilson,** city freight agent at Minneapolis. Mr. Wilson's new headquarters will be at St. Paul.

PEORIA & EASTERN.—L. R. Jabinson, division engineer, has been appointed also general manager, succeeding **K. F. Emmanuel,** who has retired after 39 years of service.

PULLMAN COMPANY.—James E. Flannery, mechanical assistant, has been named general superintendent of shops.

ROCK ISLAND.—E. T. Franzen has been appointed engineer of bridges at Chicago, succeeding **John F. Marsh,** whose resignation was announced in *Railway Age* July 18, page 46.

H. P. Schmidt, assistant signal engineer, has been promoted to signal engineer, succeeding **C. M. Bishop,** resigned.

E. L. Fiske has been appointed district passenger agent at Chicago, replacing **F. E. Gottner,** who has retired after more than 44 years of service.

SEABOARD AIR LINE.—A. M. Baker, assistant general freight agent at Tampa, Fla., has retired and has been succeeded by **L. E. Morgan,** district freight agent at Mulberry, Fla., where he will continue to make his headquarters.

W. J. Suber, road foreman of engines at Norlina, N.C., has been appointed shop superintendent, Jacksonville shops, with jurisdiction over mechanical department matters at Baldwin, Fla., succeeding **H. E. Aenchbacher,** transferred.

ST. JOHNSBURY & LAMOILLE COUNTY.—Richard E. Shelgren has been appointed traffic representative at Buffalo, N.Y.

SOUTHERN PACIFIC.—Stanley M. Houston, assistant general superintendent motive power at San Francisco, has been appointed general superintendent motive power there, succeeding **B. M. Brown,** who has retired after 44 years of service.

Stanley M. Houston

Leland E. Lyon, division engineer at El Paso, Tex., has been transferred to Tucson, Ariz., succeeding **T. W. Saul,** who retired July 31. **Edwin O. Williams** replaces Mr. Lyon.

TEXAS & NEW ORLEANS.— J. L. Fielding, assistant freight traffic manager at Houston, retired July 31. **Roy J. Switzer** has been appointed industrial agent at Dallas, Tex.

TEXAS & PACIFIC. — Reece Price, chief rate clerk at Dallas, has been named assistant general freight agent.

UNION PACIFIC.—Guy A. Bryant, general agent, transportation department, has been appointed superintendent transportation, with headquarters as before at Chicago.

E. F. McFadden, division storekeeper, Eastern district, at Denver, has been appointed purchasing agent at Salt Lake City.

G. R. Rasmussen has been appointed division storekeeper at Denver.

William Parry, master mechanic of the **Western Pacific** at Elko, Nev., has resigned to become engineer locomotive construction and maintenance of the UP, at Omaha. **J. J. Carroll,** general foreman at Omaha, has been appointed shop superintendent at Salt Lake City.

VIRGINIAN.—N. S. Lewis, assistant superintendent telegraph and signals at Princeton, W.Va., has been appointed superintendent telegraph and signals at that point, succeeding **E. Lockhart,** deceased. The position of assistant superintendent telegraph and signals, formerly held by Mr. Lewis, has been abolished.

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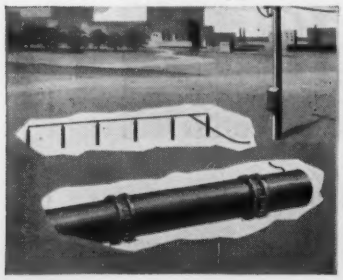
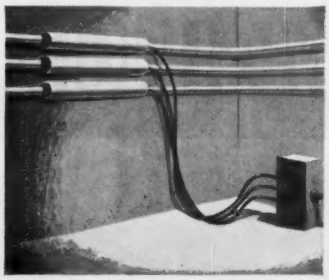
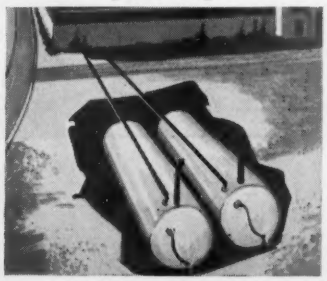


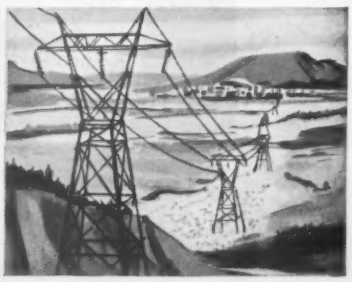
Lead-covered cable

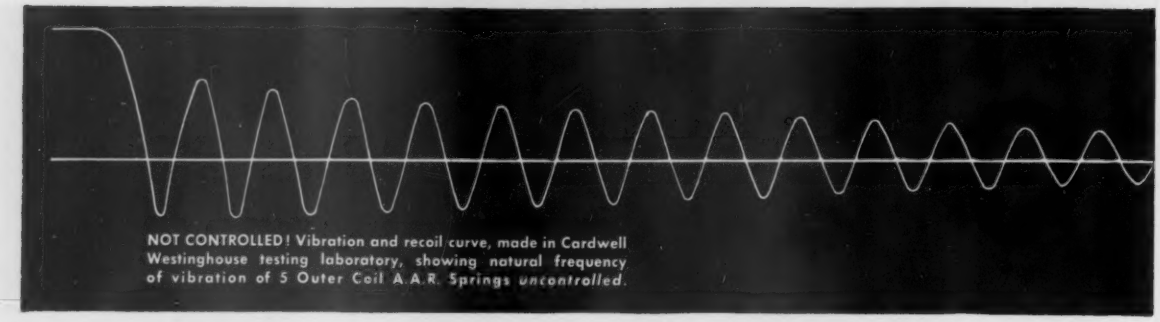


Underground storage tanks



Transmission towers





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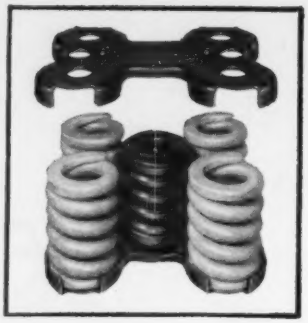

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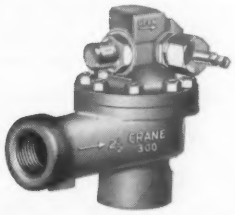

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Current Publications

PAMPHLETS

STEAM LOCOMOTIVE: A RETROSPECT OF THE WORK OF EIGHT GREAT LOCOMOTIVE ENGINEERS, by O. S. Nock. 40 pages, illustrations. British Transport Commission, 222 Marylebone rd., London, N.W. 1, England. One shilling.

The British Transport Commission's plan for modernization and re-equipment of British Railways looks ahead to 1970, when 1,100 electric locomotives and 2,500 diesel locomotives will be in circulation; 540 route-miles of suburban lines will be served by electric trains, and 4,600 multiple-unit diesel cars will be employed on other lines. The 1956 manufacturing program for new steam locomotives for British Railways passenger trains will be the last; a few years after that, no steam locomotives of any kind will be made for service in Great Britain. In this "Valedictory Exhibition" the BTC pays tribute to some of the great men of the age of steam, and to a tradition of excellence in design that will be a challenge to British locomotive builders in years to come. The men are Robert Stephenson, John Ramsbottom, Edward Fletcher, Patrick Stirling, Samuel Waite Johnson, Dugald Drummond, G. J. Churchward, and H. N. Gresley.

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PERTINENT DATA ON PRINCIPAL RAILROADS OF THE WORLD BY COUNTRIES, by Ralph C. Barton and Thomas E. Anderson. 16 pages. Shipbuilding, Railroad, Ordnance & Aircraft division, Business & Defense Services Administration, U.S. Department of Commerce, Washington 25, D.C. 20 cents.

This tabulation includes data on mileage of railroads in all countries of the world, together with data pertaining to quantity and/or type of locomotives, railroad cars, brakes, and couplers standard to such railroads. These data are based on the latest information available, as indicated in the first column of the tabulation.

•

McCLOUD RIVER RR GOLD SPIKE SPECIAL: EAST OF SHASTA, by Jack R. Wagner. 40 pages, illustrations, map. Western Railroader, P.O. Box 668, San Mateo, Cal. $1.

The McCloud River Railroad recently officially opened its new line from Bear Flat, Cal., to Burney with appropriate gold spike ceremonies at Burney. This little pamphlet recounts the history of the railroad and describes the building of the new line.

ANNUALS

SUMMARY TABLES OF THE SIXTY-SIXTH ANNUAL REPORT ON THE STATISTICS OF RAILWAYS IN THE UNITED STATES FOR THE YEAR ENDED DECEMBER 31, 1952. 226 pages. Prepared by Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Available from Government Printing Office, Washington 25, D.C. $1.25

•

FREIGHT COMMODITY STATISTICS, CLASS I STEAM RAILWAYS IN THE UNITED STATES FOR THE YEAR ENDED DECEMBER 31, 1954. 278 pages. Prepared by Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Available from Government Printing Office, Washington 25, D.C. $3.50.

FILM

THE OLD RELIABLE. 16 mm, 26 min, sound, color. Louisville & Nashville Railroad, Louisville, Ky. Free on loan.

A documentary type movie portraying a modern railroad at work—as it goes about being a public servant in the territory it serves. The film opens with colorful and scenic attractions located along the L&N from the Kentucky bluegrass to the gulf coast. Unusual action scenes include passenger and freight trains, and scenes depicting the agricultural and industrial might provided by the ever-changing, ever-developing South.

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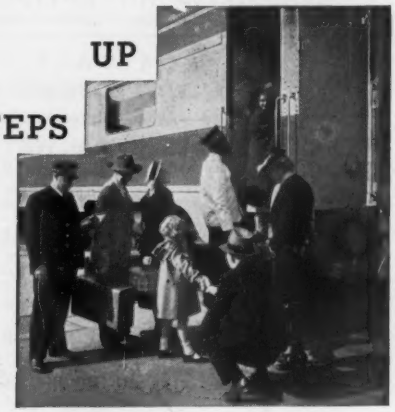

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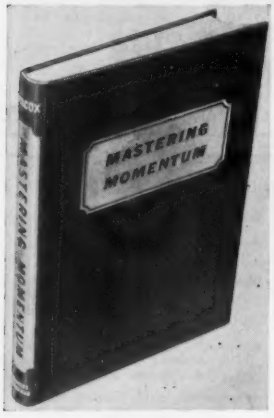

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By
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Honorary Vice Chairman
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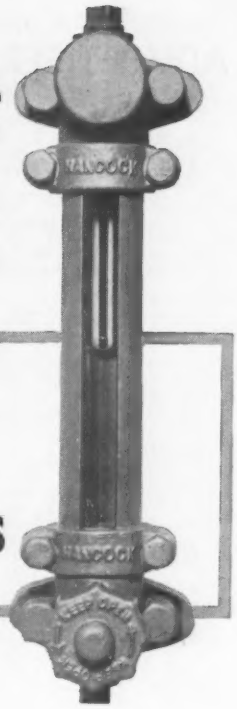

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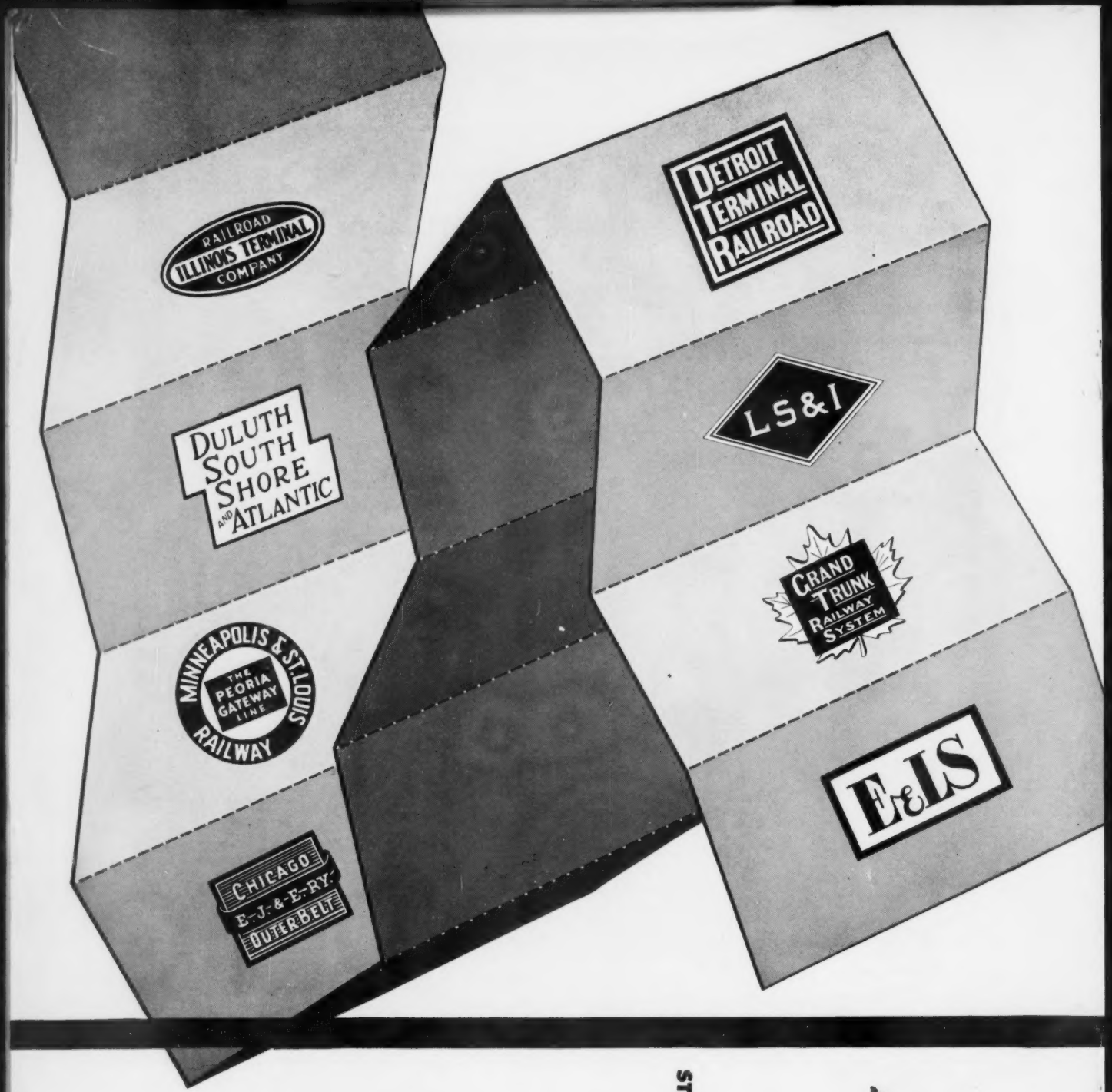

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